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ABSTRACT

The New Jersey Department of Education conducted a national search for existing materials and procedures related to one or more of the following categories: goal-setting procedures, objectives and existing banks of objectives, assessment procedures, guidelines for program selection, and evaluation of program effectiveness and efficiency. This catalog, the product of the search, is designed as a resource to provide schools with a survey of planning models in each of the categories and to assist districts in determining the appropriateness of individual models for their particular situations. The information is of three kinds: (1) identification of the planning category each model addresses; (2) identification of the original developer of the materials, the name of the publisher or distributor, and approximate costs; and (3) concise descriptions of each model extracted from original source material covering such information as overview, outline of procedures, and special features. (Author/MLF)

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MODELOG

A CATALOG OF COMPREHENSIVE
EDUCATIONAL PLANNING
COMPONENT MODELS

1975 EDITION

Fred G. Burke, Commissioner
New Jersey Department of Education
225 West State Street
Trenton, New Jersey 08625

EA 007 305

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STATE OF NEW JERSEY
DEPARTMENT OF EDUCATION
225 WEST STATE STREET
TRENTON, N.J.

OFFICE OF THE COMMISSIONER

As would be expected, the reactions to an implementation of thorough and efficient education have run a wide gamut. There are extremes: those who claim that thorough and efficient education in New Jersey public schools is and always has been in existence, and those who claim that thorough and efficient education cannot be achieved without drastic change and increased expenditures. Of course, the truth is not inherent in either of these positions. The definition of thorough and efficient education will vary from district to district. Accordingly, districts will find that the parameters provide for numerous options in developing processes to achieve thorough and efficient education. The Department of Education will do everything possible to assist districts in becoming aware of the many alternatives open to them. Guidelines in draft form will be available soon. Meanwhile, as one service to districts, we are making available this catalog of planning models.

The component models of comprehensive educational planning described herein have been selected as a result of a nationwide search conducted by the Systems Design and Development staff. The contents of this "Modelog" offer a wide and varied coverage of educational planning components and should prove useful to local school districts. However, there is no intended implication that the "Modelog" is exhaustive; therefore, local school districts are not discouraged from seeking, reviewing, and selecting other component models of their choice.

We must commend the designers of the "Modelog"; long hours of research and writing are evident. Furthermore, the "Modelog" fills an obvious void by providing a compendium of component models which can be selected and supplemented to satisfy a local school district's planning needs. It is our hope that the "Modelog" proves to be a helpful tool in the local school district's implementation of a thorough and efficient system of education. In closing, I would like to assure you that in the coming months we will attempt to provide as much additional assistance as possible to the districts.

Fred G. Burke

Fred G. Burke
Commissioner of Education

Prepared under an ESEA Title III grant administered through the Public Schools of Newton, New Jersey.

Superintendent: S. David Adler
Assistant Superintendent for Educational Planning: Harry Selover

---

Systems Design and Development Staff

Director	Rita J. Carney
Design Specialists	Virgil E. Engels J. Robert Hanson William A. Volk

For further information, you are invited to write to the staff or to telephone 609-292-7983, 7984, or 7985.

A PERSPECTIVE ON EDUCATIONAL PLANNING

Modelog is intended to be a kind of Sears, Roebuck catalog for educational planning. This reference guide should enhance consumer choice in the selection of planning models. It is anticipated that more and more local school districts will be seeking to initiate, develop or upgrade their planning activities under the mandate of the "Thorough and Efficient" court decision and subsequent legislation. It is time perhaps to rethink our perspective on educational planning generally. Such a perspective must incorporate several considerations.

First, it is clear from recent decisions at both the State and Federal level that State governments are being expected to re-examine and to reassume their constitutional responsibilities for education. Over 60 percent of the states had enacted some kind of accountability legislation by the end of 1974. Beginning in 1963 with the Pennsylvania Reorganization Act that has served as the basis for the Pennsylvania Educational Quality Act, the number of educational accountability laws began to increase in the late 1960s and seems to have peaked in the mid 1970s. This trend in the reexamination of state responsibility for education was complemented by the U.S. Congress with the passage of PL 93-380 which amended the Elementary and Secondary Education Act of 1965. This legislation represents the consolidation of federal categorical programs into a kind of special revenue sharing for education. An Annual Program Plan for State Education is required under this legislation. It would be unfortunate, however, if these trends are not accompanied by an effort to enhance the capability of local districts to do better planning in relation to these educational goals and priorities. The State Department of Education in New Jersey, through its plans for decentralization and the development of four educational improvement centers, is adopting a policy of supporting through technical assistance the evolution of a greater local ability to develop rational models of educational administration. Modelog is one product of that policy.

A second consideration has to do with who does what planning. It is not anticipated that the evolving emphasis on educational planning means that districts must become dependent upon so-called professional planners or outside consultants. Good planning models should not be incongruent with the canons of common sense. Some planning models do, however, require some degree of data manipulation or processing; others require that a pattern of communication and dialogue be established. These requirements, however, involve skills which are common in the education profession.

A third consideration has to do with priority-setting and resource allocation. As American society enters a time of post-affluence, American education is experiencing a series of economic dislocations. As one governor indicated, "The days of wine and roses are over." Some, if not many, meritorious programs in education will continue to go unfunded. Although there is likely to be some redistribution of resources within education, we cannot be optimistic that there will be any dramatic increase in the total amount of resources going to education. This is reason enough to be concerned that priority goals are established and that planning to meet those goals is adequately supported. The goals of education may vary from district to district but the planning process in support of those goals is likely to correspond to some general guidelines upon which the education profession can agree. We are hopeful that Modelog can facilitate a professional dialogue about the nature of such guidelines.

Gary Gappert
Assistant Commissioner
Division of Research,
Planning and Evaluation

INTRODUCTION

Education in the past has focused its energy on the identification and use of materials almost entirely related to instructional strategies (e.g., curriculum development, in-service training, grading systems, etc.). The demand for greater accountability, the emergence of legislation designed to ensure "thorough and efficient" education, and the growing interest on the part of community people in playing an active role in the process of educational decision-making have intensified interest in the process of education. The need to clearly identify and relate desired results to educational programs and the resources needed to carry out those programs has created demand for different kinds of "tools" to be available to today's educator. The New Jersey Department of Education, in response to requests by numerous local school districts, conducted a national search for existing materials and procedures related to one or more of the following six categories:

1. Goal setting procedures
2. Writing objectives and using existing banks of objectives
3. Assessment procedures
4. Guidelines for program selection
5. Evaluating program effectiveness
6. Evaluating program efficiency

Modelog, a catalogue of selected materials in each of these categories, is the result of that national search. This catalogue does not and could not contain every existing model. It is, however, a comprehensive collection of models. Generally, each has a clear and complete description of what tasks need to be completed to carry out the model's purpose. Each results in tangible products or outcomes. Each is deemed to be economically feasible for use in most districts. Each is written in a language and style usable by local districts and, in some cases, community people.

Modelog is designed as a resource only. It provides schools with a survey of planning models in each of six categories. It also contains information that can assist districts in determining the appropriateness of individual models for their particular situations.

The information is of three kinds:

1. The identification of which planning category each model addresses (e.g., goals, assessment, etc.).

2. The identification of the original developer of the materials, the name of the publisher or distributor, and approximate costs.

3. Concise descriptions of each model extracted from original source material covering such information as overview; outline of procedures; and, where applicable, special features.

The major focus of each program is indicated in the Table of Contents by an asterisk in the components column; any secondary focus by a plus sign. In the text itself, this is conveyed through the use of dark and light shading in the components graphic at the beginning of each program.

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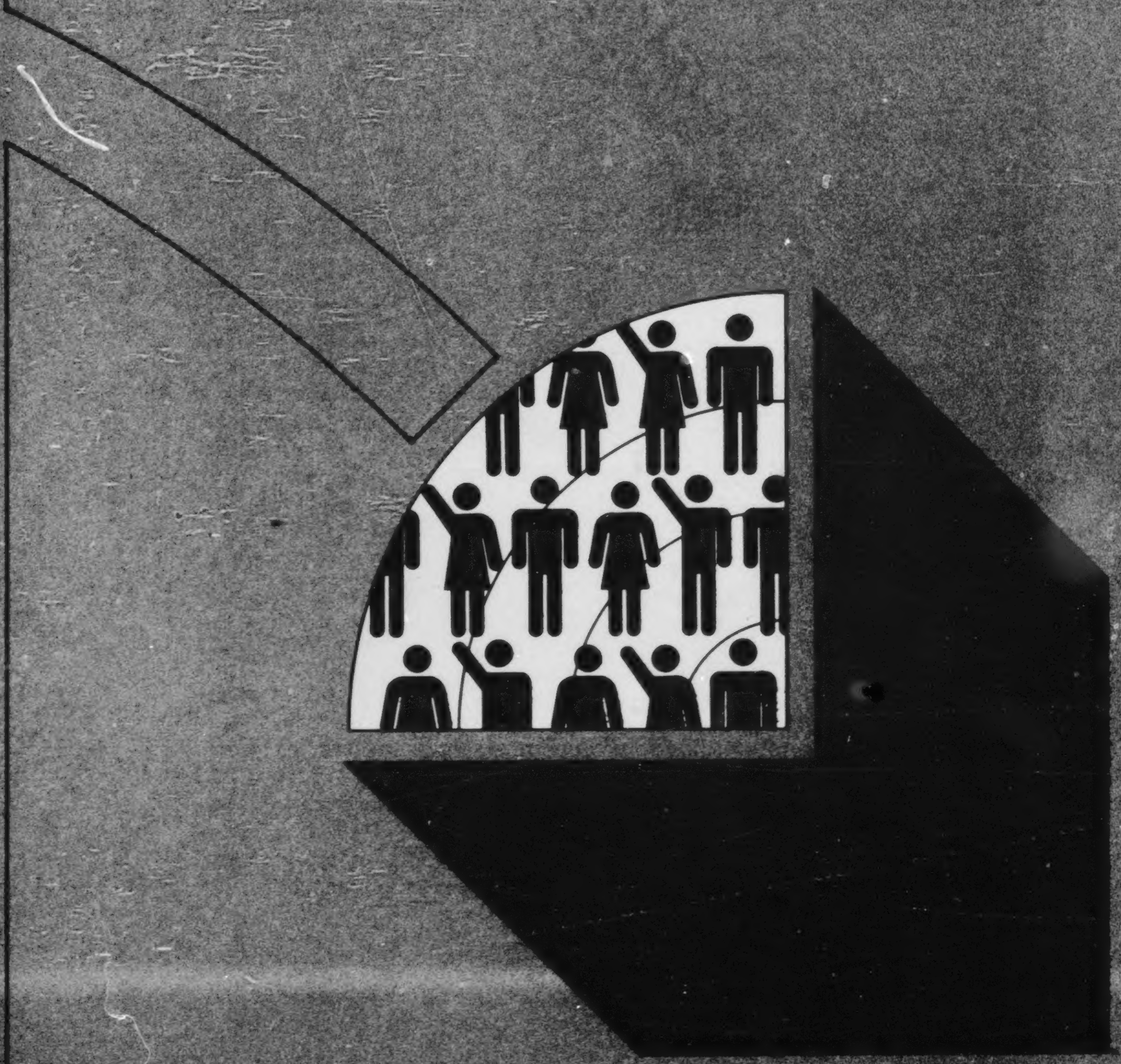
component 1

goals for education
community involvement

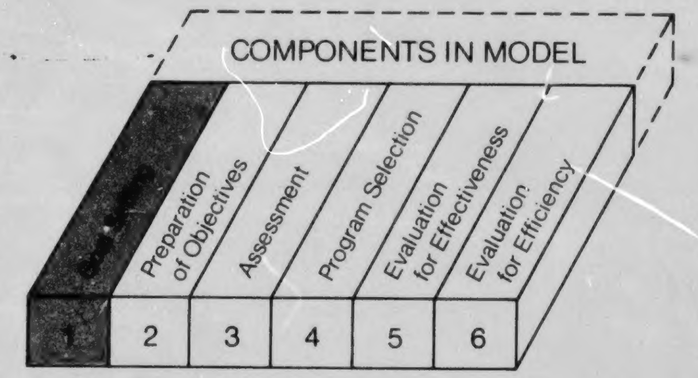


Advocacy

Source:
Educational Management
and Evaluation
Consultants, Inc.
210 Colonial Ridge
Moorestown, N.J. 08057

Cost:
$5.00

Copyright:
1970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OVERVIEW

Advocacy, an interaction game, takes information gathered in a community assessment in the form of student goals and asks players to select and rank these goals in order of importance. Also, it was designed to help people select and rank training programs necessary to achieve the student goals (e.g. teacher in-service workshops). One particular advantage of this activity is that players assume roles and experience new perspectives. In Advocacy, participants become members of the following groups: 1) teachers; 2) students; 3) board members; 4) administrators; or 5) community members.

This approach provides a great deal of interaction among the players as they actively complete their tasks. Through guided discussions by group facilitators, goals are ranked on a numbered mat and are tabulated at the end of each of three rounds. Participants can send messages via "runners" or speak via a public address system advocating a particular goal. New goals may be introduced and proposed before the entire group at any time. Effective communication steps keep groups informed as to each other's progress. The final outcome is a list of prioritized student goals and training procedures for achieving these goals.

The developer of Advocacy views the listing as a school's "development blueprint." It is recommended that the game be replayed every three years to maintain community interest and support.

PROCEDURES:

1. Needs assessment information is converted onto goal cards.
2. A director and facilitators are named.
3. A maximum of 150 players is selected for the game. Choices of selection criteria and sampling techniques are optional.
4. Players are assigned roles (teachers, citizens, etc.) and work in groups of 10 (10 teachers, 10 students, etc.) with a game facilitator at individual tables.
5. (Round I) The groups, through discussion, rank goals as to importance. Results are tabulated and posted.
6. (Round II) The groups prioritize proposed training programs related to highest ranked goals in Round I. Results again are tabulated and posted.
7. (Round III) The groups match and rank in sets both the highest goals and priority programs. Results are tabulated and the final list of ranked goals is prepared.
8. The final report is prepared for the board and community.

IMPLEMENTATION NEEDS:

In order to conduct the game, a director (a trained staff member), one facilitator per table of 10 participants, and a record keeper are necessary. Limited training is necessary. Advocacy can be played in 3½ hours with a few hours reading time required before the activity. Pre-planning time is required by the director and facilitators to gather and prepare information.

SPECIAL FEATURES:

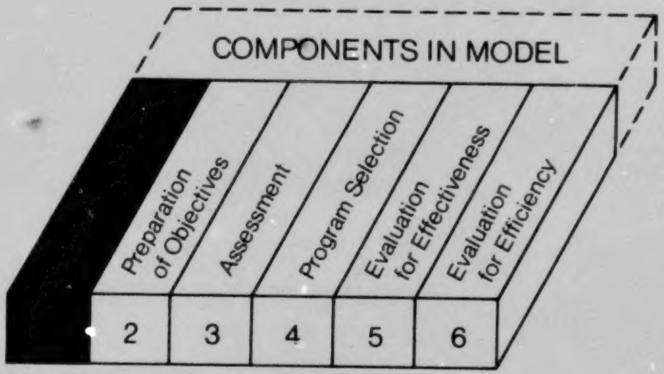
The Game:
... involves community interaction.
... ranks student goals as well as the training procedures necessary to achieve the goals.
... is well-planned; structured.
... has a short time requirement.
... is very inexpensive to implement.

Atlanta Assessment Project

Source:
Atlanta Board of
Education
Atlanta Public Schools
Atlanta, Georgia

Cost:
Contact Source

Copyright:
No (1972)


COMPONENTS IN MODEL
Preparation of Objectives
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OVERVIEW:

The goal-setting phase of the Atlanta Assessment Project suggests an effective method of establishing and ranking future-oriented goals. This model is essentially a case-study describing an ESEA Title III project. Participating in the rating and ranking of goals are representatives of the community (from various occupational levels, etc.), educators, and high school students. Each group is given a list of preestablished goals developed by a state advisory committee and abstracts of predictions for the future. A district adopting this approach may use other sources (e.g. objective banks, local surveys, etc.) or opt to generate its own goal statements. Participants are involved in three rounds of activities during which goals are judged as to importance on a six-point scale and then prioritized. During each round, each participant makes a series of judgments, each successive judgment being made in the light of a summary of judgments of all participants in the previous round. The method is designed to produce increasing agreement among participants. Results of the Atlanta program show this method of obtaining concensus to be particularly successful with community representatives. The case study material presents selection criteria and methods for ensuring cross-representation of the community. Districts will find the analyses of information received from participants to be comprehensive and helpful in determining community perceptions.

PROCEDURES:

The Atlanta case study suggests the following steps to be considered by a district.

1. Project staff identifies a list of goal statements developed by a state advisory committee or another source.
2. Staff edits and revises statements into separate goals.
3. A questionnaire is designed asking respondents to rank goals.
4. Staff prepares a series of abstracts concerned with possible future conditions/projections. This information forms a frame of reference for participants.
5. A representative panel of community members is identified and invited to participate. A variety of selection methods can be used to ensure broad community representation.
6. During three rounds, participants are interviewed and asked to rate and rank the goals. Additional goals can be suggested.
7. Project staff tallies and analyzes information.
8. This same process is repeated with representative groups of educators and high school students.

IMPLEMENTATION NEEDS:

The size and scope of the project will determine staffing and cost. A director may choose to use outside consultants to prepare preliminary information (e.g. future predictions), interview participants, and/or analyze information. Required is a list of educational goals developed by an outside source or generated by participants. Time commitment will depend upon how a district chooses to obtain information from participants. Individual interviews, small group sessions, or a large group meeting are some of the alternatives.

SPECIAL FEATURES:

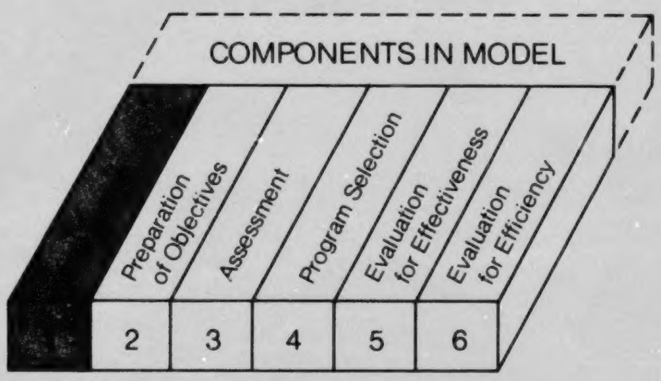
The Assessment Procedures:
... have an effective method of obtaining concensus.
... are flexible; allow for options (e.g. generating original/using pre-established goals).
... contain comprehensive analyses and comparisons of information from various groups (e.g. teachers, students).
... provide community members with insight into the value of educational needs assessment activities.

Community-Perceived Needs Assessment Module

Source:
Research for Better
Schools, Inc.
Administrating for Change
Program
1700 Market Street
Philadelphia, Pa. 19103
(215) 561-4100

Cost:
Contact Source

Copyright:
1973


COMPONENTS IN MODEL
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OVERVIEW:

Six training modules comprise the Community-Perceived Needs Assessment Module program. They are appropriate for any district attempting to understand community perceptions. The program is completely self-explanatory and is designed to give school administrators skills in identifying community opinions.

The major phases of the program are: 1) planning a project; 2) identifying sampling procedures; 3) preparing a questionnaire (e.g. rating scale, open-ended); 4) collecting data; 5) processing the information and drawing conclusions for a written report.

Recommended is a preliminary study in which administrators identify a problem area, purpose of the study, and methods to be used (e.g. mailed interviews, structured questionnaires). Booklet I presents suggestions which make this study relatively easy to conduct.

Research for Better Schools, Inc., has prepared self-explanatory manuals which contain clear and specific instructions. Each module consists of instructional material, guidelines, planning worksheets, post-tests, samples, task sheets, checklists, etc. Alternatives are presented along with a discussion of the advantages and disadvantages of each approach.

PROCEDURES:

1. Administrative staff examines problem area, purpose of study, levels, and methods.
2. Project manager (an educator) develops a plan which includes tasks, staff, timelines, etc., to be used.
3. Project staff, using recommended steps, select the desired sampling technique and choose participants from the community.
4. Project staff develop a needs indicator questionnaire (e.g. rating scale, open-ended questions, or a combination of both).
5. Project staff select appropriate information-gathering methods, (e.g., mailed questionnaires, interviews, or group meetings).
6. Using easy-to-follow instructions, project staff process and analyze information.
7. Staff draw conclusions, make comparisons, and summarize information. Guidelines are included.
8. A preliminary report is prepared for board approval.

IMPLEMENTATION NEEDS:

A project manager (school administrator) working alone or with a small staff can direct and monitor the activities. As in most cases, the amount of time and the budget needed will depend upon the scope of the problem area. RBS claims that a simple project (e.g. determining the willingness of parents to have children leave school early to participate in career education programs) can be carried out in several weeks; a moderate project, two to three months; or an extensive one the larger part of the school year.

SPECIAL FEATURES:

... lists advantages and disadvantages of all alternatives presented.
... includes a comprehensive series of training modules, self-explanatory and easily adaptable to any community need.
... features a wealth of supplementary materials (guidelines, checklists, planning worksheets, samples, post-tests, etc.)
... permits a number of options.
... clearly-written; well-designed to elicit community opinions.

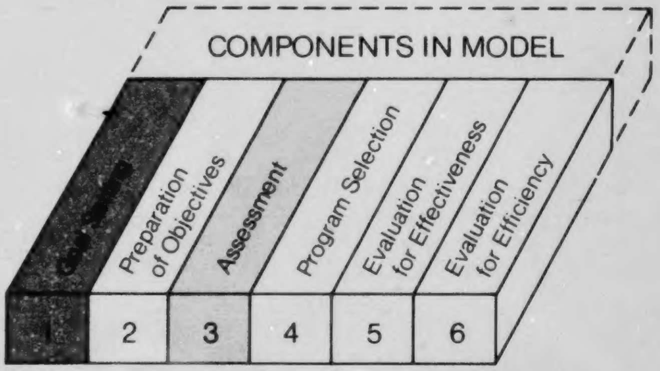
CSE/Elementary School Evaluation Kit: Needs Assessment

Developers:
R. Hoeffner, P. Bradley,
S. Klein, M. Alkin

Source:
Allyn and Bacon, Inc.
470 Atlantic Avenue
Boston, Mass. 02210

Cost:
$100.00

Copyright:
1972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OVERVIEW:

Designed especially for the elementary school principal or elementary district administrator, the CSE assessment kit includes a set of comprehensive procedures and materials needed to gather information about student needs. The four major steps of the program are: 1) identifying goals for specific grade levels; 2) selecting tests to measure attainment in these areas; 3) administering appropriate tests; and 4) selecting those goals of prime concern. Requiring no specialized skills, the program features a wealth of well-researched information in practical and useable form. Participants (faculty, parents, board members and community members) study and rank a list of 106 educational goals. Options exist in choosing participants, in using mailed questionnaires or working with groups, and in deciding on critical areas.

A complete set of test reviews, organized by grade level and goal areas, makes selecting appropriate tests a relatively simple matter. The final section of the kit presents a unique method by which the principal can select those goal areas of priority value. Sample calendars, public relations form letters, questionnaires, and other materials provide the principal with handy references.

This kit enables a district to answer these questions:
- What are the goals of a school?
- How well are students achieving in the goal areas?
- How can this information be analyzed and communicated to the community?
- Which goal areas, if emphasized, are most likely to improve?

PROCEDURES:

1. Principal decides grade level(s) for which goals will be selected.
2. Principal identifies groups to be represented. Suggested sampling methods are included. The principal has the option of not including other viewpoints.
3. A method for collecting information is decided--in groups, individually (mailed questionnaires), or by a combination of both.
4. Using a list of 106 goals and any others identified, participants rate each on a five-point scale (most important to unimportant).
5. Principal, using simple mathematical procedures, tallies, averages, and ranks goals for each group.
6. An interim report is compiled and distributed to participants.
7. Professional staff, working through the kits, select appropriate tests for goal areas.
8. Tests are administered and results interpreted. Sampling procedures and information for interpreting results are included.
9. Principal, using guidelines recommended, identifies goal areas of greatest priority.
10. Results of study are communicated in a report to the community.

IMPLEMENTATION NEEDS:

Due to the nature of the kit, the elementary school principal or administrator, with some clerical and staff assistance, can manage the project. The time factor will vary. The goal-setting stage, depending upon the groups used in the study, can be completed in twelve weeks. Test selection, administration and summarization of results will take longer. Costs for this program are minimal with most materials supplied.

SPECIAL FEATURES:

The CSE assessment kit contains:
... a complete program for needs assessment of student goals.
... carefully documented and researched information.
... many options.
... practical; clearly described; well-organized materials.
Additionally, no special training is necessary.

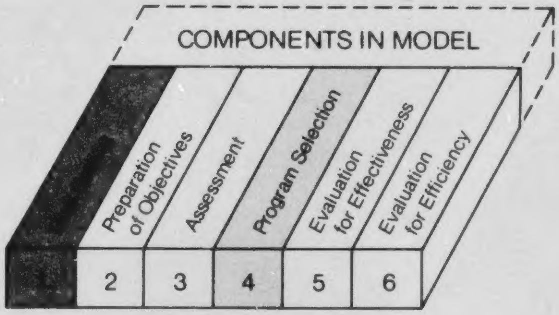
"GAME"

Developer:
Community Development Group

Source:
Learning Institute of North Carolina
1006 Lamond Avenue
Durham, N.C. 27701
(919) 688-8211

Cost:
$10.00 for the kit

Copyright:
1971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OVERVIEW:

"GAME" is designed to serve two purposes: 1) to select and rank goal statements (a list of goals is included), and 2) to allow game participants to see what factors are involved in implementing the selected goal statements.

PROCEDURES:

"GAME" is designed to be played in groups of 3-5 people (teachers, parents and students). It consists of four rounds covering a total time period of about two hours, or 30 minutes per round. "GAME" is designed as an interaction procedure where participants support and negotiate individual choices. If there are several groups participating, the "game" will need to be modified to allow for inter-table negotiation and settlement.

Round one consists of identifying goals followed by discussion and debate as to what goals are to be adopted. Since the game is focused on classroom utilization, extensive modification would be necessary for its use on a district-wide level.

Round two provides for the selection of appropriate instructional techniques or strategies for accomplishing the goal. There is no provision for converting the goal into measurable objectives statements.

Round three invites participants to select appropriate teacher/student/materials/equipment interaction. (Both strategies and interactions may apply to multiple goals.)

Round four provides choices for participants to select the most appropriate physical settings for the strategies and interactions.

A record sheet is provided so that the group's findings may be entered at the conclusion of each round. The card sets for "interactions" and "settings" are visualizations. Goals and techniques are narrative statements on separate color-coded cards.

IMPLEMENTATION NEEDS:

Professional assistance in the form of curriculum specialist is desirable to explain to participants the meaning of the interaction symbols, the strategies, techniques, and the meanings of the goal statements. The goal statements are process rather than instructional content statements.

SPECIAL FEATURES:

"GAME" is possibly unique in that, in an interaction setting, it allows participants to see the potential implications of their decisons relative to goal selection.

"GAME" is primarily for instructional planning related to schools and classrooms.

"GAME" might be very useful, after having employed other models for goal-setting, in assisting instructional staff to make program selection choices based on a discussion of strategies, interactions, and physical settings.

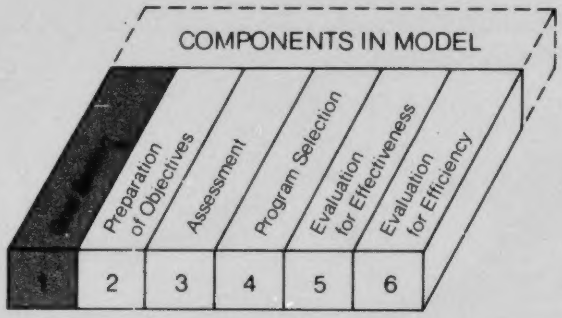
Goal Development in Education –
A Planning Handbook for School Districts

Developers:
Bernard A. Kaplan
Glenn Tecker
Jean Pundiak

Source:
Bureau of Planning
Division of R.P. & E
Field Services New Jersey
State Department of
Education
225 W. State Street
Trenton, N.J. 08600

Cost:
$2.50 (paperback)

Copyright:
No (1974)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OVERVIEW:

This Handbook describes why a district should begin a goal development process, who should be involved, how to manage the process, and what should be done after goals have been adopted. The Handbook is designed to be a simple and logical guide to goal development. Several goal setting models are explained, thus permitting a district to select the model or models best suited to local conditions. However, the Handbook provides only some basic tools for achieving community involvement.

PROCEDURES:

The handbook is divided into six sections: Introduction, Comprehensive Planning, Goal Development, Models, Managing Goal Development Activities, and Appendix.

The section, Comprehensive Planning, describes a seven state comprehensive planning process which incorporates goal development. The explanation of comprehensive planning will help those districts which have not established such a process and are considering setting district goals. They will better understand how goal development fits into an overall planning process and what commitment goal development demands from the district for it to be a meaningful and useful activity.

The section, Goal Development, focuses on goals, what they are, how they can be developed by the community, what happens after they have been written and accepted by the district, and provides several examples of goals developed by other state and local educational agencies.

The next section, Models, describes the three types of models, conferences, interviews, or surveys, designed and field tested by the "Our Schools" project, a project to develop a set of statewide educational goals through public involvement.

The section, Managing Goal Development Activities, outlines the duties of the advisory council, the managing body for the goal development process. Included are factors to be considered in choosing goal development activities, a sample program of goal development activities, writing reports, and a sample preliminary report.

The Appendix contains guidelines for group discussion leaders and recorders, sample minutes, news releases and letters of invitation, a description of the leadership identification process, district profile data form, teacher questionnaire, and bibliography.

This handbook attempts to explain thoroughly the procedures in a goal development process developed and field tested by the "Our Schools" project. However, a school district may need additional information about writing survey and interview questions, guidelines for conducting surveys, polls and interviews, and methods of selecting random samples. The section in the bibliography, "Instruments and Techniques for Collecting Data," lists several books concerned with surveys, samples and measurement techniques.

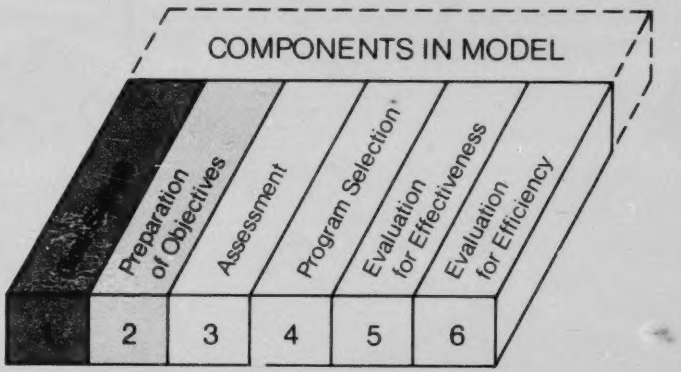
It must be stressed that this handbook describes the goal development techniques tested by the "Our Schools" project. Many other goal development techniques exist and can be utilized by a school district. Several of these models are described in the third handbook in this series, Needs Assessment in Education.

Phi Delta Kappa's "Educational Goals and Objectives: A Model for Community and Professional Involvement"

Source:
Phi Delta Kappa's
Commission on Educational
Planning
P.O. Box 789
Bloomington, Ind. 47401

Cost:
Sample Kit $3.00
Community Kit $60.00
Replacement Kits $28.00

Copyright:
1972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OVERVIEW:

Designed to produce a set of goals and objectives for a school or a school district, the Phi Delta Kappa (PDK) Model provides a complete kit with detailed, step-by-step instructions for organizing the program and what one does as a participant. A representative community committee is selected with membership consisting of citizens-at-large, school staff, and students. Four ways of selecting the committee are proposed, and the advantages and disadvantages of each method are listed. Goals are established from a prepared list of eighteen (18) general statements by either a committee or a group of small committees, and they are prioritized. The same people give their perceptions of how well the schools are doing currently in meeting those goals.

The information is given to professional staff members who then prepare objectives for their programs. Unlike the goal-setting procedures which are very specific, the instructions for the development of objectives are very general. The content and scope of the training, for example, is left open-ended as is the set of steps for converting curriculum into objectives. Those who desire specific instructions can complement this section with other materials. Still others may opt to prepare objectives directly from goals rather than preparing objectives from existing content. This approach, however, requires complementing PDK materials with other materials.

Another committee then matches the program objectives to the goals and determines whether or not anything else needs to be done to complete the goal and objective-setting process.

Phi Delta Kappa recommends that the next steps consist of designing and conducting educational programs in concert with sound management techniques. Of course, those who believe that assessment should involve more than the perceptions of the committee can opt to complement these materials with a more formalized assessment plan prior to the designing and conducting of programs to address the goals and objectives.

PROCEDURES:

1. Administrative staff selects strategies for the composition of the Community Steering Committee.
2. Eighteen prepared goal statements are distributed to each member of the Committee along with explanatory materials.
3. Committee members rank goals individually using a printed display board and movable tabs.
4. Small groups then rank goals.
5. Total Steering Committee consensus is calculated mathematically on the basis of number weights assigned to goals.
6. Total Committee agrees on final ranking of goals.
7. Goals are analyzed by individual members, small groups and total Committee in terms of how well the district or school is addressing those goals.
8. Goal analysis findings are then approved by total Committee and turned over to the professional staff for resolution.

IMPLEMENTATION NEEDS:

A project director (an educator) with some clerical assistance is required. It is estimated that the goal-setting phase of the program can take place over a twelve-week span of time; the phase concerned with developing objectives can take from two to six months beyond initial training activities. Time commitment, however, will vary and depends upon local conditions.

The total cost of materials is under $100 and other costs (e.g. refreshments, etc.) are minimal.

SPECIAL FEATURES:

The PDK Goal Setting Kit features:

... a complete training kit, including instructions, sample materials, guidelines, etc.

... alternative selection procedures to select participants and advantages and disadvantages of each.

... a well-planned, field-tested model.

... a minimal cost.

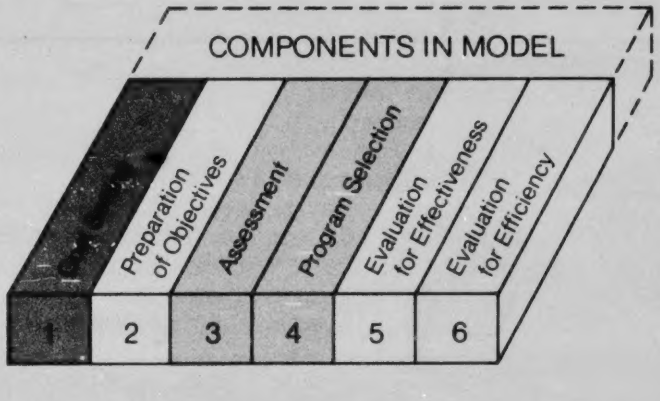
... available in Spanish and English; ninth-grade reading level.

The Placer System: A Three-part Accountability Model

Source:
Placer County Office of
Education
1230 High Street
Auburn, Ca. 95603
Kenneth L. Lonergan,
Superintendent

Cost:
$1.00

Copyright:
Yes 1970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OVERVIEW:

The Placer model is appropriate for any school interested in any or all of the following activities: 1) setting goals; 2) writing programs based on goals; and 3) evaluating programs. These activities form the basis of the three-part in-service program which is thorough and flexible in design. A school may choose to use only the goal-setting component of this program or perhaps the evaluation component. Each part can be used independently. The guidelines are explicit; sample forms are many; and the information technical.

The goal-setting phase is characterized by a series of steps to obtain and process information and the sample instruments to be used. The district will decide the makeup of the participating group and the selection criteria to be used. The board receives as a final report a list of ranked goals. This report also includes the results of a community survey reflecting the community's views of the goals.

The second phase of this model guides the professional staff in translating class activities into objectives, specific programs, and ultimately into a statement of philosophy. The final phase focuses on various ways of evaluating school programs. The staff learns to select and design instruments and to make decisions about how to gather, store, and use evaluative information.

PROCEDURES: Establishing goals *

1. School board makes commitment to project and names a group leader.
2. Participants are selected; various selection criteria are used.
3. Participants, using index cards, record views on goals of education and important goals of life.
4. Statements are grouped and labels are assigned to each group (e.g. school discipline).
5. Using a sample grid, participants compare educational goals to life goals and rank them. Information is tallied and summarized.
6. Participants indicate the degree to which they feel the school is achieving the goals. Information is tallied and summarized.
7. Using a questionnaire, members of the community-at-large react to information gathered.
8. The goals committee develops a report for distribution to board members which includes ranked goals and other information gathered.

IMPLEMENTATION NEEDS:

The goal-setting phase of this model requires a group leader (a teacher or administrator) with some training in setting goals and a small clerical support staff. In most cases, information can be gathered in three to six sessions of about two hours' duration. Surveying the community, tallying information, etc. will take longer.

The program development phase and the evaluation phase, because of their thoroughness, will take considerably longer (from six months to two terms). Consultants with technical skills in these areas will be required.

Major expenditures will be required for the staff consultants and possibly computer processed analyses of information.

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*Since the main concern of this review is goal-setting, procedures for that phase only are included.

SPECIAL FEATURES:

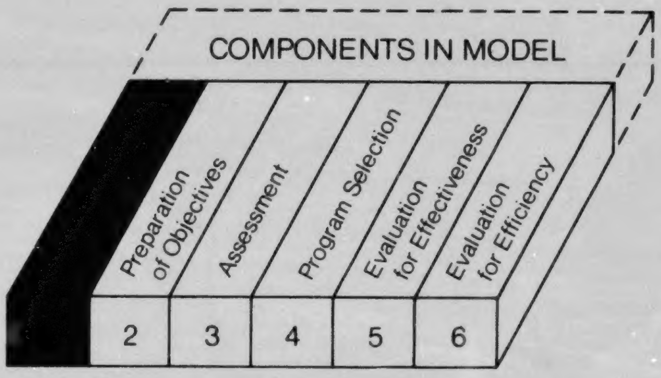
- ... extremely comprehensive in scope and detail.
- ... applicable to any school community.
- ... adaptable at any level.
- ... requires in-service training.
- ... extensive instructions on evaluation and program development techniques.

Pupil-Perceived Needs Assessment Package (PPNA)

Source:
Research for Better
Schools, Inc.
1700 Market Street
Philadelphia, Pa. 19103
(215) 561-4100

Cost:
Contact Source:

Copyright:
1973



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OVERVIEW:

The Research for Better Schools' package is a series of training units enabling teachers and administrators to collect information about student feelings and reactions to varying school issues. Appropriate for any school community (grades three through twelve), the model is completely self-explanatory and as a result, no special training is required to use it.

Five major components of the program are: 1) planning the project (information-gathering, determining tasks, timelines, budget); 2) developing a pupil-perceived questionnaire, called a "needs indicator"; 3) administering the indicator; 4) processing and summarizing the information; and 5) analyzing and reporting. Precise procedures, pre-tests, post-tests, assignments, sample case-studies, checklists, etc. make the project relatively simple to implement and evaluate.

The outcome of this program is a list of pupil-perceived needs. RBS recognizes that while pupil needs must be identified, they should not be the sole basis for decision-making; other groups--parents, teachers, community, etc.--must be considered. Therefore, other models, should be identified to supplement the PPNA package.

PROCEDURES:

1. Administrative staff collects preliminary information to determine feasibility of conducting study.

2. A project manager (adminstrator or teacher) develops a plan.
3. Project staff determines specifications for questionnaire. This involves: a) the type and length; b) method of development (whether to use an existing instrument or to construct an original); and c) sample size and techniques to be used.
4. Needs indicator is developed, pilot-tested, and evaluated. Revision follows.
5. Teachers involved, using prepared manuals, administer revised indicator during one class period.
6. Using easy-to-follow instructions, teachers complete the following tasks: sampling, classifying, categorizing, tabulating, and summarizing information.
7. Staff evaluates three project elements: a) the questionnaire itself as to reliability and validity; b) the procedures for getting information; and c) the methods for analyzing and presenting it. Case study samples, again, are included for quick reference.
8. Project staff compiles a report.
9. Staff conducts a self-evaluation or review of the entire project.

IMPLEMENTATION NEEDS:

Time, staff, and budget requirements are based on the size of the problem area. A modest project (e.g. reactions of two classes of sixth-graders to a new physical education teaching method) can be completed in five working days. A moderately-sized project (e.g. reactions of all seniors to an English electives program) can take ten working days while a more extensive study, several months.

In most cases, the staff includes a project manager, some teachers, a typist and scorers. If a project is mandatory or limited in extent, it is probable that no separate budget will be necessary. The main expenditure is for personnel stipends. For a project administered to twenty classrooms (average of thirty students each), a budget of approximately $300 is normally required.

SPECIAL FEATURES:

PPNA provides the following:

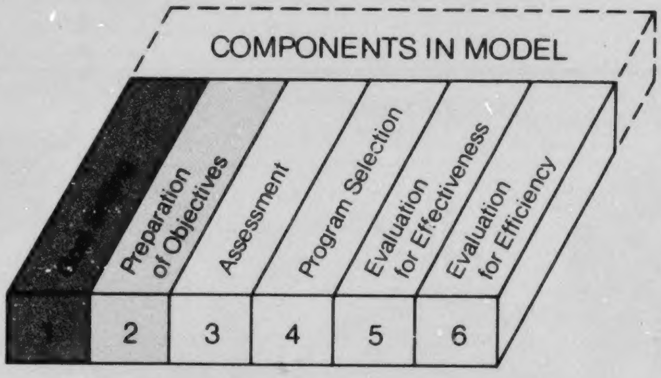
... adaptability with many options to any school-related problem area.
... elicits only student information.
... activities may be covered in short time segments (an hour or two) or long blocks (whole days, weeks) depending on time available.
... an introductory unit which helps the school staff determine whether the program is suitable.
... self-explanatory manuals with step-by-step instructions.
... an evaluation design permitting the school to examine the results critically.

The Sarasota County Needs Assessment Process

Source:
School Board of Sarasota County
2418 Hatton Street
Sarasota, Florida 33577

Cost:
Contact Source

Copyright:
No (1973)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OVERVIEW:

The case study needs assessment model developed by Sarasota County Public Schools includes: 1) an outline of the needs assessment process; 2) a method to prioritize goals; 3) a list of ranked goals; and, of particular value, 4) specific learner behaviors and performances pertaining to the ranked goals.

Goals are established by representative groups of parents, community members, school personnel and students. Districts should consult other models to determine selection processes and specific ways to set goals. This study presents the steps necessary in conducting a needs assessment while leaving the identification of strategies for the local district to decide.

Districts interested in examining sample materials from several stages of a needs assessment project will find this model useful. The model uses simple sorting techniques to rank goals and includes for reference a list of composite goal rankings from all groups surveyed in the Sarasota study. A prime concern of the project is to translate these goals into objectives (called expected learner behaviors) and ultimately to determine student needs. Provided in the case study are sample statements of learner behavior and learner performance derived from the ranked Sarasota goals.

PROCEDURES:

1. Project staff identifies the set of student outcome goals to be prioritized.

2. Representative groups of citizens, teachers, administrators, and secondary school students participate in a prioritizing survey. Sampling techniques should be determined by the user.
3. Participants are given a set of goal cards to be sorted into various piles in order of importance.
4. After sorting, participants place piles of goal statements into appropriate slots in a folder provided.
5. Project staff tallies results and compiles a preliminary report analyzing information.

IMPLEMENTATION NEEDS:

The goal ranking phase of the project requires only a project director (an administrator) and some clerical assistance. The ranking itself can take place within a few hours and requires few materials or other expenditures. The Sarasota Needs Assessment project, in its entirety, will require a minimum of two years with appropriate staffing and budgeting since it includes other elements of assessment.

SPECIAL FEATURES:

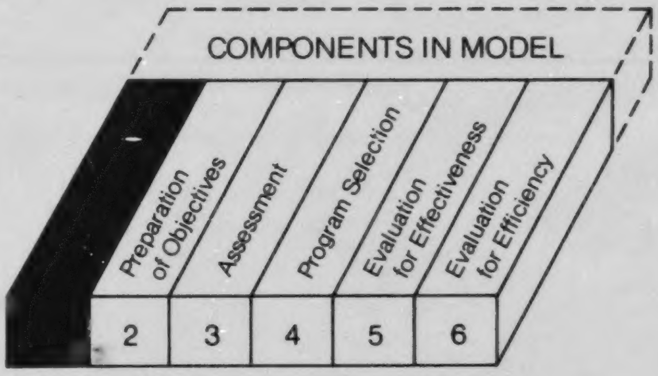
... includes useful sample materials on translating goals into statements of learner behaviors.
... describes a quick and relatively simple way to prioritize goals.
... outlines the steps in a needs assessment but gives little direction as to implementation.

The School and Community: Partners in Education

Source:
Fresno County Department of Education
Fresno, California 93700
Ernest A. Poore, Superintendent

Cost:
$2.50 (booklet)

Copyright:
No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OVERVIEW:

Highlighting the concept of a community conference, this model consists of a five-phase process for establishing and prioritizing school goals in a relatively short period of time. Essentially, a steering committee (representatives of the board, administration, staff, students, and community) conducts a conference which involves the entire community. To ensure participation, however, the committee invites no less than sixty people. The Fresno program can be modified with selection criteria and sampling techniques when forming committees. Simplified yet detailed information on how to organize and conduct the conference comprise the major portion of the program.

PROCEDURES:

1. School board makes decision to conduct needs assessment process after preliminary study.
2. School board and administration establish selection criteria and nominate a twenty-to-thirty member steering committee (one-third board and administration, two-thirds students, staff and a cross-section of the community).
3. The project manager (administrator, staff member, or citizen) and steering committee plan a community conference and invite selected participants and the community-at-large. Committee has option of using selection criteria.
4. Participants (including steering committee members) work in small groups not to exceed six persons. Each group reaches consensus on school constraints and needs and prioritizes these needs.

5. Steering committee sorts, clusters, and writes composite needs statements.
6. Project manager compiles a ranked list of needs statements and distributes copies to community conference participants.
7. Project manager or outside consultant conducts a training session on writing school goals for steering committee.
8. Steering committee rewrites needs statements into goals. Use of the four suggested ranking procedures is optional.
9. Goal statements are presented to the school board for acceptance and implementation by board and staff.

IMPLEMENTATION NEEDS:

It is possible to present goal statements to a school board within four to six weeks. Further activities (e.g. program objective writing, resource allocation, etc.) will take longer. Time commitments for all groups are minimal.

A project manager (school administrator or staff member) is required along with some clerical support staff. An outside consultant may be necessary to train the committee in writing goals.

Costs are minimal and the largest expenditure will be for personnel if extra compensation is necessary. Any large room can be used for the conference. If it is held on one Saturday rather than on two weekday evenings, an additional luncheon expenditure will be required.

SPECIAL FEATURES:

This easy-to-follow model has several unique features:

... provision for broad representation of the community.

... a strong leadership role for a community steering committee.

... short time requirements (four to six weeks).

... minimal costs.

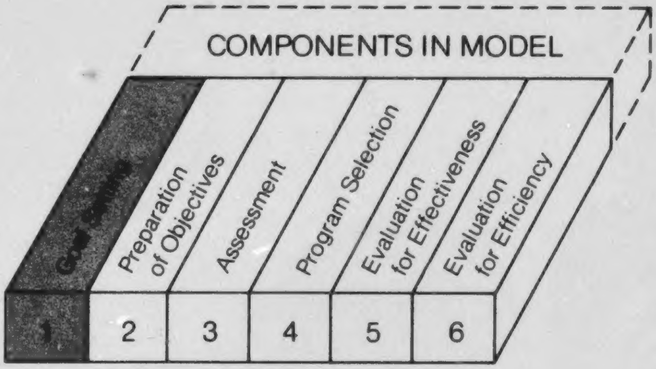
... several options available throughout the procedures.

Setting Goals: Training Unit I

Source:
Far West Laboratory for
Educational Research
and Development
1855 Folsom Street
San Francisco, Ca. 94103

Cost:
$8.95

Copyright:
1973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OVERVIEW:

The Far West training unit is designed to provide administrators with skills and experiences in deriving and clarifying district goals. The manual is based on a training workshop in which participants, working both individually and in teams, go through the basics of goal-setting. Four stages are: 1) deriving goals; 2) refining; 3) screening; and 4) prioritizing them. Each unit is well planned and includes an overview, individual readings, post-tests, and team training exercises allowing for exchange of ideas among team members. It is expected that participants will apply the processes to their actual school settings. With this in mind, Far West places participants in a hypothetical school district situation. Participants assume roles as members of an instructional planning team, representing several groups (e.g. teachers, administrators, board members, parents, etc.).

PROCEDURES:

Participants write goals based on a philosophy, then sort the goals and seek for clarification. A district has the option of going through the first three stages with the professional staff alone, but is advised to use others (community, parents, etc.) for the fourth and final stage (prioritizing). This is to ensure that the goals are representative of all groups in the community.

Other models should be used to suggest selection criteria and sampling techniques. Sample goals from three state surveys and a list of future predicted educational needs are included. The steps which follow are based on the hypothetical case-study included in the units and would be appropriate for most districts:

1. A project director (an administrator or outside consultant) and an instructional planning team are appointed by the superintendent and board. Representatives from various community groups can be included but this is optional.
2. The director gathers information on the district's philosophy, purposes, etc. and representative goals from other sources (state surveys, local studies).
3. The team examines information and screens goals. Major categories are identified (e.g. character development, social responsibilities, etc.).
4. Team members in groups compile a list of goals and evaluate. Worksheets are included.
5. The team, using recommended criteria and procedures, refines each goal into more specific statements (called goal indicators) and revises them.
6. The team selects at least three outside representative groups to assess the list. Using a rating scale, groups rate each goal indicator as to its importance.
7. The team tallies results and identifies high priority goals.
8. Project director compiles a report for the superintendent, staff, board, and participants.

IMPLEMENTATION NEEDS:

A coordinator (an educator) with some clerical support staff is needed. Cost is minimal since local resources are used. A list of prioritized district goals could take approximately three to four months to compile.

SPECIAL FEATURES:

The Far West training unit provides:

... concise, sequential steps to follow.

... the concept of a planning team of professional staff members.

... goals written and scrutinized with great care.

... information useful to instructional program.

... minimal cost.

... a solid basis for building goals.

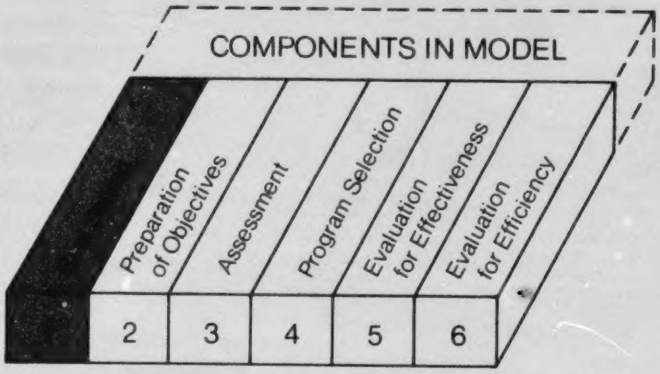
Sharing Decisions - Dallas Style:

An Overview of Dallas' Model for Shared-Decision Making

Source:
Dallas Independent School District
3700 Ross Avenue
Dallas, Texas 75204

Cost:
Contact Source

Copyright:
No (1973)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OVERVIEW:

Based on the premise that the decision-making process is as important as the decision itself, the Dallas model provides a framework for involving all members of the educational community in decisions. This model is a case study showing how this approach was developed and used in the Dallas school system.

The goals involved were initially developed by the board. In order to effectively implement these goals, a program entitled "Operation Involvement" was set up. This was a systematic effort to get assistance from the educational community in determining program goals, assessing needs, and establishing priorities and budgeting resources.

Groups participating in Operation Involvement are:

- The District Communications Committee is composed of representatives from all employee groups and as such, concerns itself with matters of importance to any of these groups.
- The Dallas School Administrators' Association has a full-time president whose duty is to facilitate communications among all administrators and the superintendent.
- The Superintendent's Student Advisory Committee which is composed of junior and senior class members from each of the district's high schools.

- A PTA Council consisting of representatives from each school within the district.
- Two sub-groups are: the Principals' Advisory, composed of elected principals; and the Field Advisory Team, composed of administrators from all operational levels.

Detailed information is included explaining how to set up such representative committees.

Each group reviews annually the set of original goals identified at the beginning of the process and identifies new goals. Rank-ordering follows. The operation Involvement Project committee plays the major role in establishing goals, priorities, and relating these to district budget allocations.

PROCEDURES:

Because of the nature of the case study, one general set of operating procedures for all groups is not applicable. What follows are five major phases of operation for the Operation Involvement Project committee.

1. The committee meets at the beginning of each school year to set goals and discuss priorities for the following year. Recommendations come from all sub-groups in the form of "concerns."
2. On a retreat, selected representatives review goals and budget projections and assign priorities. Representatives attend a board retreat to communicate and discuss this information.
3. Representatives visit local schools to study areas of concern by meeting with school area personnel.
4. Representatives study costs of goal items and start identifying priorities based on budget projections.
5. Representatives recommend to the board a set of continuing goals and a set of new goals, priorities, and budget.

IMPLEMENTATION NEEDS:

The decision-making process is on-going and involves every employee group in the district, along with community representatives and students throughout each school year. Each committee functions on a continuous basis.

Some staffing costs include a full time president of the administrators' association, released time for teachers, and retreats sponsored. No special materials or skills are required. The use of consultants is optional. Of course, a district interested in adapting this process will develop its own staffing requirements based on local needs.

SPECIAL FEATURES:

... not a model for the "how" of goal-setting, but rather the "who" to get involved and how they function.
... non-technical; easy to read.
... methods for selection of participants largely open-ended.
... provides for an open communication system throughout the district.
... makes effective use of all levels of the educational community in goal and budget setting.

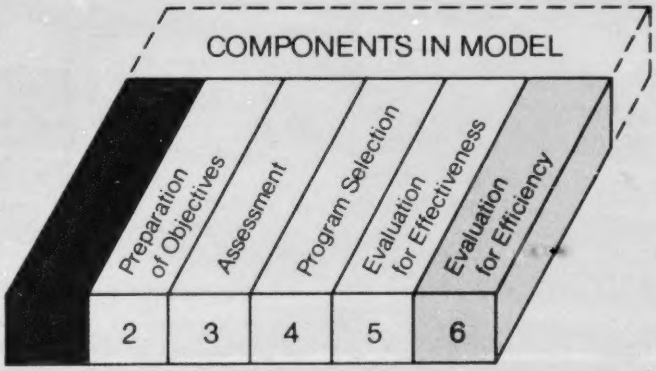
"STEP"
System for Trenton's Educational Planning" Vol. II

Developer:
Government Studies and
Systems, Inc.

Source:
Trenton School System
9 South Stockton Street
Trenton, N.J. 08600

Cost:
ERIC ED 056 - 372
hardcopy $3.29

Copyright:
No (1973)


COMPONENTS IN MODEL
Preparation of Objectives
Assessment
Program Selection
Evaluation for Effectiveness
Evaluation for Efficiency
2
3
4
5
6

OVERVIEW:

STEP is a community approach to ranking educational descriptors utilizing an opinionnaire published and released through the local newspapers. Respondents are asked to rate 36 educational needs on a 0 - 5 continuum. The tabulated results constitute the basic data collection phase of a program planning and budgeting system design.

PROCEDURES:

Procedures consist of ten sequenced steps divided into two phases. Phase I consists of 1) establishing a School-Community advisory group; 2) preparing a list of school district descriptors (educational activities and emphases but not as goal statements); 3) surveying the community and special groups for their evaluation of the 36 descriptors; 4) analyzing results to identify perceived problems and trends; 5) preparing goal statements responsive to the greatest needs (called "high salience descriptors"); and 6) a school district policy-making group approving and revising the indicators. Phase II activities include: 7) collecting current information on the high ranked needs; 8) presenting the information to the community for their opinions on desired priorities; 9) the school district policy committee setting priorities; and 10) allocating resources.

IMPLEMENTATION:

This model requires extensive consultative assistance. The STEP model does not describe detailed procedures for each of the activities.

SPECIAL FEATURES:

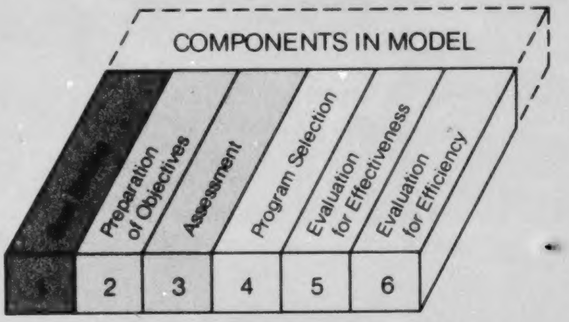
STEP's use of an opinionnaire distributed through the press, as well as the analysis procedures for the data, is unusual and may, with the adoption of more democratically selected procedures for securing a community advisor group, be of assistance to large districts in securing community involvement in goal-setting.

Teacher Competency Development System

Source:
Prentice-Hall, Inc.
Englewood Cliffs, N.J 10994

Cost:
$199.95 (entire system)

Copyright:
Yes 1974


COMPONENTS IN MODEL
Preparation of Objectives
Assessment
Program Selection
Evaluation for Effectiveness
Evaluation for Efficiency
2
3
4
5
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OVERVIEW:

The Teacher Competency Development program is aimed at helping the classroom teacher in any school setting improve classroom performance. Twenty-six self-study booklets explain clearly to the teacher how to plan and evaluate his/her instruction in terms of student performance. This review covers the first eight booklets. Three major areas in this section include: 1) writing and using goals and behavioral objectives; 2) establishing a curriculum framework; and 3) determining performance standards. For example, Booklet IV, "Deciding on Defensible Goals via Educational Needs Assessment," will enable the teacher to outline a procedure for conducting a needs assessment study.

Each booklet or topic of the series includes an objective, instructional information, related questions, a mastery test, and answer sheets. Some components are: "Selecting Educational Objectives," "A Curriculum Rationale," and "Humanizing Educational Objectives." Essentially, the program very clearly relates classroom instruction to educational goals and methods for evaluation. Written in a non-technical style the TCD system has maximum flexibility for all types of programs and uses.

PROCEDURES:

Unit IV - "Deciding on Defensible Goals via Educational Needs Assessment" - instructs the teacher in the following steps:

1. Identifying the roles of parents, citizens, curriculum specialists, teachers, administrators, and students in collecting information (goals).

2. Having participants identify what they expect students to be like as a result of their education (goal-setting). Alternatives on how to collect and rank the information are cited.
3. Determining the proportion of students who should master the goal statements.
4. Identifying the proportion of students who already have mastered the goal statements. Suggestions for measuring tools are included.
5. Selecting the final set of goals.

IMPLEMENTATION NEEDS:

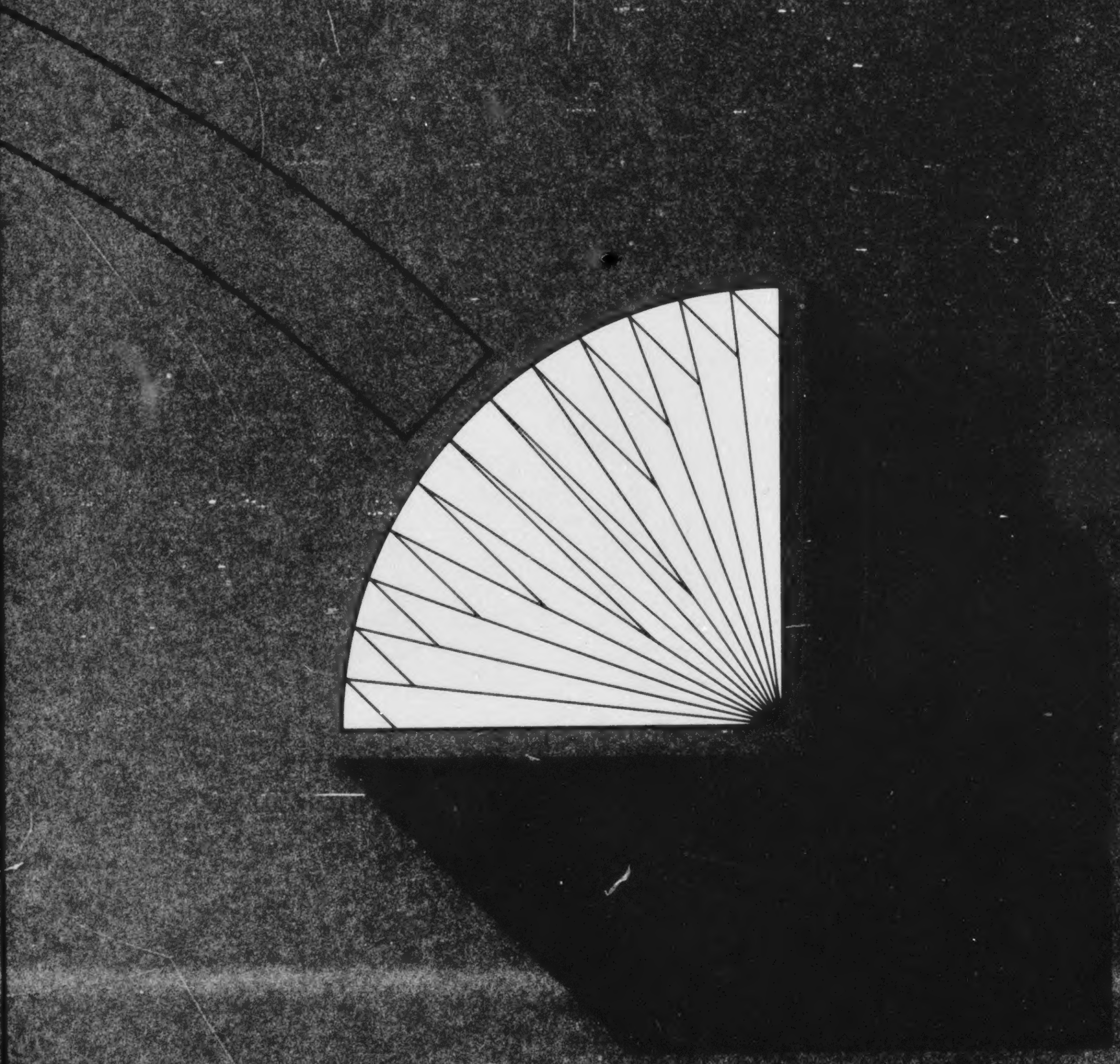
Teachers, working separately or in groups, can spend as much time or as little time as necessary to master the skills contained in each booklet. For example, Booklet IV which concerns the needs assessment process can be read, discussed, and mastered in as little as an hour or two. All 26 components of the system can be purchased for $199.95. No other materials expenditures are required.

SPECIAL FEATURES:

... the program relates directly to the teacher and can be applied directly to the classroom.
... a thorough, self-explanatory in-service program.
... adaptable to direct needs of teachers and administrators.
... offers a variety of twenty-six instructional topics and skill mastery procedures in easy-to-follow formats.

component 2

educational objectives preparation



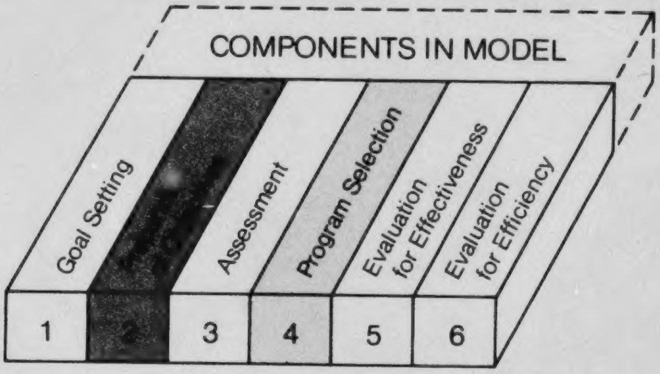
Basic Principles of Curriculum and Instruction

Developer:
Ralph W. Tyler

Source:
University of Chicago
Press (Chicago and
London)

Cost:
$2.95/Paperback

Copyright:
Yes, 1949


COMPONENTS IN MODEL
Goal Setting
Assessment
Program Selection
Evaluation for Effectiveness
Evaluation for Efficiency
1
2
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4
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OVERVIEW

This book is a general text which one might expect to be used as a supplement in a college course. It is written especially for curriculum developers. The author outlines one way of viewing an instructional program as a functioning instrument of education. Methods of formulating, organizing, and evaluating objectives are discussed.

This book suggests methods for studying the following questions:

1. What educational purposes should the school seek to attain?
2. What educational experiences can be provided that are likely to attain these purposes?
3. How can these educational experiences be effectively organized?
4. How can we determine whether these purposes are being attained?

PROCEDURES:

The material most pertinent to this component is contained in the middle and latter sections of Part I and is entitled, "The Use of Philosophy of Learning in Selecting Objectives," "The

Use of a Psychology of Learning in Selecting Objectives," and "Stating Objectives in a Form to be Helpful in Selecting Learning Experiences and in Guiding Teaching." In the first two sections mentioned above, it is suggested that a clearly defined philosophy of education and a theory of learning formulated in concrete terms are essential in the selection of meaningful objectives.

In the third section, a useful chart system is suggested for stating objectives. The author emphasizes two aspects of objectives, the behavioral aspect and the content aspect. Objectives are formulated on a two-dimensional chart, the dimensions being behavior and content. The chart provides a form to state objectives so that their meaning is clearer and the way in which they can be used in setting up learning experiences is more obvious than would be the case if they were stated another way.

IMPLEMENTATION NEEDS:

The reading of this book takes several hours, and the actual use of the techniques suggested within the text would take considerably more time.

SPECIAL FEATURES:

The use of the two-dimensional chart as suggested by Tyler is an unusual and helpful mode for expressing objectives.

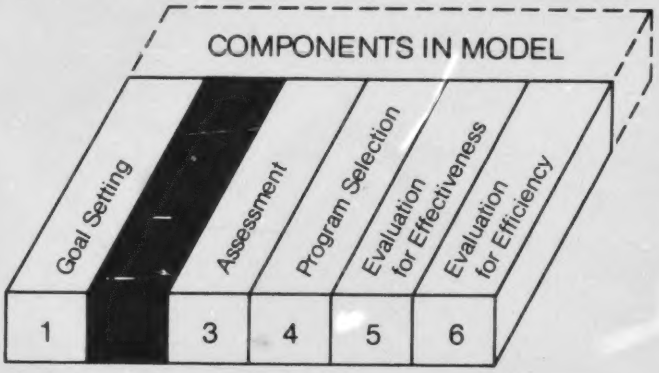
Behavioral Objectives and Instruction

Developers:
Robert J. Kibler
Larry L. Barker
David T. Miles

Source:
Allyn and Bacon, Inc.
470 Atlantic Avenue
Boston, Mass. 02210

Cost:
$7.95/book

Copyright:
Yes, 1970


COMPONENTS IN MODEL
Goal Setting
Assessment
Program Selection
Evaluation for Effectiveness
Evaluation for Efficiency
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OVERVIEW:

Written as a supplementary text for education courses; teachers, administrators, curriculum planners, members of school boards, and researchers might also find this book of value to them. In an effort to improve the quality and efficiency of instruction, the authors have attempted to shape favorable attitudes toward the use of behavioral objectives, inform readers about the nature and characteristics of behavioral objectives, and teach educators to write behavioral objectives.

Six unique characteristics of this book, as given by the authors, are as follows:

1. It presents material relative to behavioral objectives from a variety of sources in a single volume.
2. It presents a classroom-tested model of instruction that illustrates the relationships of behavioral objectives to the instruction-learning process.
3. It prescribes an approach to objectives based on planning instruction and informing others of instructional goals.

4. It analyzes, in substantially more detail than has been available to date, the elements contained in objectives that are required to plan instruction.

5. It presents an original, taxonomic classification for the psychomotor domain.

6. Appendix A provides a variety of sample behavioral objectives for different areas of study. Teachers can use these as models in preparing their own behavioral objectives.

PROCEDURE:

Most relevant to the focus of this component are Chapter II (An Analysis of Planning Objectives), Chapter III (Objectives and Behavioral Domains), and Chapter IV (Writing Informational Objectives).

In Chapter II, theoretical material on the difference between planning and informational behavioral objectives is given; planning objectives are cited as those which include the following five elements:

1. Who is to perform the desired behavior;

2. The actual behavior to be employed in demonstrating mastery of the objective;

3. The result of the behavior;

4. The relevant conditions under which the behavior is to be performed;

5. The standard which will be used to evaluate the success of the performance.

Chapter III, using the Taxonomy of Educational Objectives developed by Bloom and Krathwohl, outlines the cognitive and affective domains. An original classification of psychomotor behavior is presented here.

In Chapter IV, the reader is taught to write instructional objectives in behavioral terms. After a short introduction, programmed practice exercises in the writing of objectives are given, first in general and then in each of the three domains.

Appendix A (Samples of Behavioral Objectives), Appendix C (Instrumentation of Bloom's and Krathwohl's Taxonomies for Writing of Educational Objectives), and Appendix D (Instructional Objectives Exchange) are, as their titles indicate, pertinent to this component and may be used as resource or reference material.

IMPLEMENTATION NEEDS:

If used as a resource of reference or supplementary text, no special consideration is needed in terms of time, money, or personnel.

SPECIAL FEATURES:

An original taxonomy for the psychomotor domain is unique to this book.

Much of the information found in this book may be found in more detail in Objectives for Instruction and Evaluation, a book written by Kibler, Barker, and Miles.

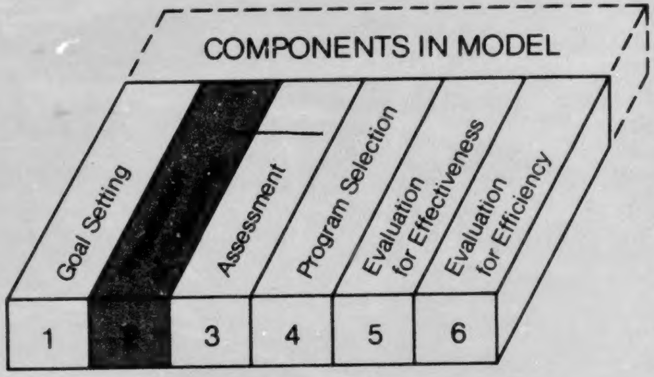
Behavioral Objectives: 7 Different Games Designed at Indiana Help Develop Basic Skills

Developer:
Sivasailam Thiagarajan

Source:
Simulation/Gaming/News
November 1974

Cost:
$4.00 (Journal Article)

Copyright:
Yes


COMPONENTS IN MODEL
Goal Setting
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Program Selection
Evaluation for Effectiveness
Evaluation for Efficiency
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OVERVIEW:

Thiagarajan has developed seven simulation games which deal with the skill of stating specific behavioral objectives. The basic intent of these games is to create in the participants a positive attitude toward the writing and use of behavioral objectives.

Upon playing the games with a group of peers, each participant usually exhibits an increase in the following approach tendencies:

1. Use of behavioral objectives whenever appropriate.
2. Repeated rewriting of an objective to make it more specific.
3. Free discussion of behavioral objectives with others.
4. Enthusiastic training of others to state behavioral objectives.

The participants also exhibit a decrease in the following behaviors:

1. The stereotypic separation of instructional objectives into "behavioral" and "bad" categories.

2. Complaints about the mechanical nature of behavioral objectives.

3. Defensive reaction to criticism of objectives.

PROCEDURES:

The games may be described as follows:

1. S.T.P. - This game helps players identify action verbs which are suitable for use in behavioral objectives. It is a group, pencil-and-paper game.

2. Go Go Goals - This game provides practice in using behavioral terms in statements of instructional objectives. It is a fast-moving game suited to small groups.

3. The Name Game - This game emphasizes the importance of the content of behavioral objectives. Using a prepared chart, participants fill in behavioral objectives for such areas as Sex Education, Philosophy, and Beginning Reading.

4. Obscured Objectives - Drill practice in writing complete objectives is given without participants realizing they are receiving such drill.

5. Double Standards - Practice in specifying minimum acceptable standards for behavioral objectives is given.

6. Double Tic-Tac-Toe - Practice in writing behavioral objectives and illustration of the fact that there are certain common conditions which are applicable to different situations are given here. A grid is used to demonstrate this to players.

7. Epitaph for a Behaviorist - This game is designed to emphasize the fact that behavioral objectives are not suitable for all occasions. Players convert epitaphs into objectives in this fun game.

IMPLEMENTATION NEEDS:

A person skilled in small group leadership and knowledgeable in the field of behavioral objectives would be needed to coordinate these games. The materials required are pencils, paper, index cards, and perhaps a chalkboard. Although no time estimate is given for the games, a half hour per game would be a fair estimate.

SPECIAL FEATURES:

Very few simulation games have been designed for use in learning to write behavioral objectives. Thus, this material meets a distinct need.

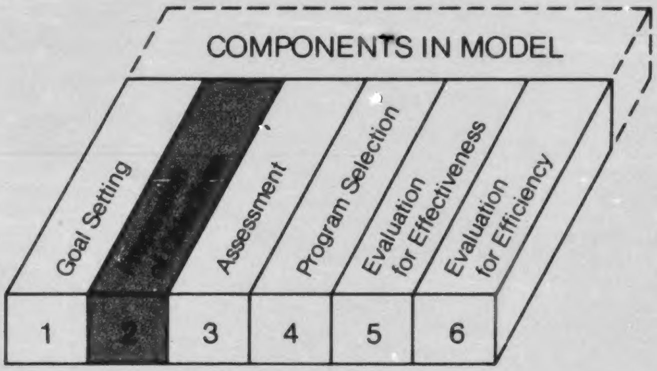
Behavioral Objectives in Curriculum Development

Developer:
Miriam B. Kapfer

Source:
Educational Technology
Publications, Englewood
Cliffs, N. J. 07632

Cost:
$9.95 (hardbound)

Copyright:
Yes 1971



OVERVIEW:

This book is a collection of more than forty selected readings and bibliographies. An attempt has been made to bring together a convenient collection of current work on the subject of behavioral objectives, together with references to many other works which provide historical and contemporary perspective.

Written for educators at all levels of "influence and responsibility," the material presented includes both the theoretical and practical. There are a number of selections which emphasize a very straightforward, practical approach and others which represent a higher level of abstraction.

PROCEDURES:

This text, 400 pages in length, might best be used as a reference and/or supplement to other materials. It is organized into eight sections, and, although a single article may touch several categories, its placement in the volume is based on its major focus. The sections are as follows:

Part I - Behavioral Objectives--An Overview of What, Why, and How

Part II - Classifying Objectives to Improve Instruction

Part III - Behavioral Objectives and the Teaching of Values

Part IV - Behavioral Objectives and the Curriculum Developer

Part V - Behavioral Objectives and the Subject Matter Specialist

Part VI - Behavioral Objectives and the Educational Technologist

Part VII - Behavioral Objectives and the Curriculum Evaluator

Part VIII - Opposing Viewpoints

IMPLEMENTATION NEEDS:

This book requires considerable time for thoughtful reading. It lends itself best to independent study or study by an individual.

SPECIAL FEATURES:

There are lists of references provided at the end of each section. Because of the number of articles included, as well as the spectrum covered by those articles, anyone seeking answers to specific questions on behavioral objectives would surely be able to find at least some material or reference to some material relating to his concern.

Determining Instructional Purposes

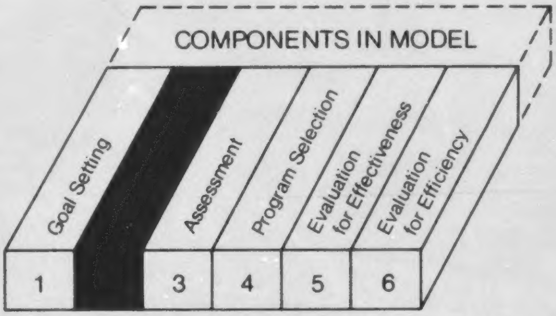
"Deriving Objectives" — Training Unit 3 and Coordinator's Handbook

Developers:
Charles L. Jenks
Nancy G. Bostic
J. Gregory Otto

Source:
Far West Laboratory for Educational Research and Development, 1855 Folsom St., San Francisco, California 94103
415-565-3200

Cost:
Contact source.

Copyright:
Yes 1973



OVERVIEW:

Training Unit 3, "Deriving Objectives," is the final part of a larger program entitled Determining Instructional Purposes. (Units 1 and 2 are called "Setting Goals" and "Analyzing Problems.") It appears to be written more for administrators and curriculum planners than the classroom teacher. This training unit is divided into four modules as follows:

Module 1 - The Goal Refinement Process: Participants are oriented to a model of Goal Refinement Process. It provides definitions and examples of each step of the process in order to provide a framework in which Deriving Objectives can be viewed.

Module 2 - Screening Objectives: Participants learn to screen objectives, those curricular objectives generally used by curriculum specialists, department heads, teachers, and other curriculum planners. Guidance, relevance, and feasibility are the criteria used in this screening process.

Module 3 - Analyzing Sets of Objectives: Four factors to consider when analyzing the adequacy of sets of curricular objectives are studied. They are appropriateness of representation and emphasis of cognitive behaviors, adequacy of representation of affective behaviors, adequacy of subject matter coverage, and internal consistency.

Module 4 - District Planning for Goal Refinement: Upon completion of this module, participants should be knowledgeable about some characteristics of "effective planning," be able to analyze critically the district planning procedures for properties that are exemplary, inadequate, or missing, and be able to relate certain district planning practices and procedures with the appropriate properties of "effective planning."

The coordinator's handbook is comprehensive in nature and is designed to give necessary information and guidance to the person responsible for coordinating a training course based on one or more of the units in this program. Included for each unit are the following:

1. A page on which one may write a tentative schedule for training.

2. An introduction and overview of each module.

3. List of all tasks that the coordinator should perform in guiding participants through each session.

4. Suggested discussion questions.

PROCEDURES:

Just as the emphasis in each module varies, so do the exercises and activities vary. The following is a summary of the procedures for each module.

Module 1 - Participants simulate the role of interplanetary trouble-shooters whose mission it is to help outer-space beings organize their curriculum planning. The first part is a team activity designed to relax participants and to have them interact with their teammates. Part 2 requires participants to work individually on activities designed to teach them about the benefits and uses of goal refinement. Self-tests and feedback conclude the module.

Module 2 - Participants work in teams to screen curricular objectives. They then refer to "Suggested Responses" for feedback on this set of materials.

Module 3 - Part 1 is a programmed text to be completed by participants at home. Part 2 is a team activity in which a set of curricular objectives for an environmental studies program is analyzed.

Module 4 - Part 1 is an individual activity in which participants, using newly acquired knowledge and skills, must write a letter of sorts. They also must read and summarize the material presented. Parts 2 and 3 are team activities and involve school district planning efforts. A self-test, intermittent feedback, and coordinator-led discussions are used to allow participants self-assessment of their progress.

Using the training materials, the coordinator of this program is responsible for organizing, guiding, and monitoring the training process.

IMPLEMENTATION NEEDS:

A coordinator is essential to this training program. All materials necessary to carry out this program are included in the training package. The time allotments, though somewhat flexible, are as follows:

Module 1 - 2 3/4 hours
Module 2 - 1 1/2 to 2 hours, plus 2 hours of homework
Module 3 - 2 1/4 hours
Module 4 - 2 3/4 hours

SPECIAL FEATURES:

This program is more comprehensive when compared to other models in this component. Although it requires considerable time to complete, the wide variety of creative learning activities enhances the learning process.

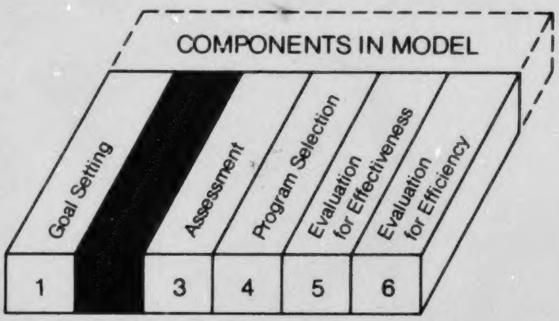
Developing and Writing Performance Objectives

Developer:
EPIC Diversified Systems

Source:
Educational Innovators Press
Div. of EPIC Diversified
Systems Corporation
P.O. Box 13052
Tucson, Arizona 85711

Cost:
$3.00

Copyright:
Yes, 1970



OVERVIEW:

Written basically for curriculum developers and classroom teachers, this booklet describes a system for developing and writing performance objectives based on two premises:

1. All behavior is observable, and
2. Communication is facilitated when a group of terms is used to describe behavior.

The system described may be used to write objectives at all educational levels, from the classroom instructional level through the state level.

Explanation is given as to the variables influencing an educational program. These variables are people (or institutional dimension), behavior (or behavioral dimension), and instruction factors (or instructional dimension).

Once a variable from each of the three dimensions is identified, an objective can be written. Thus, a performance objective includes a variable from each dimension, as well as the instrument or technique used to measure the level of behavior, expected time of measurement, and the level of proficiency.

PROCEDURES:

This booklet is written in very technical terms and covers a wide range of material in a short space (41 pages). The reader is introduced to the author's multi-dimensional theory of performance objectives, is given detailed and illustrated material on the categorization of objectives (cognitive, affective, and psychomotor), and the level of each of these categories. There is a series of seven self-administered tests to evaluate the reader's understanding of and skill in using the concepts developed in the booklet. The tests are detailed and comprehensive. The final activity for the reader is the writing of 12 performance objectives.

IMPLEMENTATION NEEDS:

This booklet may be read and the activities completed in 2 to 3 hours. However, the reader needs many more hours than that to absorb and synthesize the material, as there are 27 terms introduced in this material.

For this information to be used most effectively, someone skilled in the writing of behavioral objectives would be needed to help evaluate the objectives written by the reader as well as to discuss the test results.

The best use of this booklet might be made at the conclusion of an intensive study of objectives, as it is much too technical for those being introduced to the writing of behavioral objectives and may tend to influence beginners negatively.

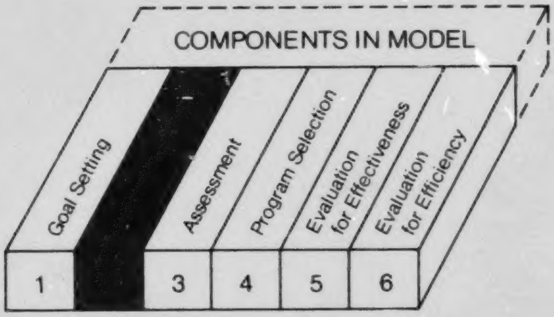
Educational Objectives in the Psychomotor Domain

Developer:
Elizabeth Jane Simpson, Ph.D.

Source:
The Classification of Educational Objectives: Psychomotor Domain
Reprint of article appearing in Illinois Teacher of Home Economics, #4, Winter 1966-67
University of Illinois, Urbana-Champaign, Ill.

Cost:
Contact source.
29 pages mimeographed.

Copyright:
1966



OVERVIEW:

Psychomotor objectives are those which "emphasize some muscular or motor skill, some manipulation of material and objects, or some act which requires a neuro-muscular coordination." This material on the psychomotor domain was developed as a result of a lack in not having a classification system for educational objectives in that domain, and because the psychomotor area has relevance for education in general as well as for such areas of specialization as industrial education, agriculture, home economics, music, art, and physical education.

PROCEDURES:

This taxonomic schema for the psychomotor domain is reference material and is not intended to be read as narrative material. Thus, used as resource material, this information would be very helpful for anyone interested in creating behavioral objectives in the psychomotor domain.

The major organizational principle operative here is that of complexity, with attention to the sequence involved in the performance of a motor act. The main organizational headings in this domain are as follows:

1.0 Perception
2.0 Set
3.0 Guided Response
4.0 Mechanism
5.0 Complex Overt Response

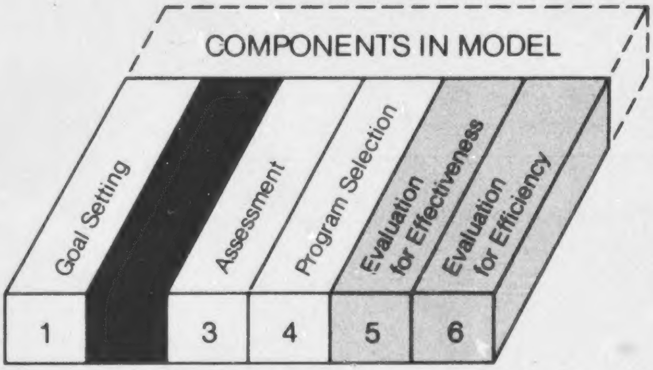
Goal Analysis

Developer:
Robert F. Mager

Source:
Fearon Publishers Lear
Siegler Inc., Education
Division, Belmont,
California 94002

Cost:
$2.95 (paperback)

Copyright:
1972



OVERVIEW:

The purpose of this publication is to provide a framework for writing performance objectives from broad based goal statements. Specifically, goal analysis relates to enabling techniques that help you to:

1) Be able to identify statements that describe abstractions and those that describe performances.
2) After identifying a goal that you consider important to achieve, be able to describe the performances that represent your meaning of the goal. In other words, be able to describe specific outcomes that, if achieved, will cause you to agree that the goal is also achieved.

PROCEDURES:

Five basic steps are outlined as procedures to follow in removing the fuzziness that surrounds a goal statement. The five steps are defined as follows:

1) Performance Analysis - is used to determine whether there is an important difference between what someone is already able to do and what it is intended for him to be able to do, and, if an important difference does exist, whether instruction or some other course of action (inform, manage, improve) is appropriate.

2) Task Analysis - is a careful description of what the important person does or is supposed to do when he is doing a job.

3) Critical Incident Analysis - describes the indications that things are not going as described. It answers the questions, what isn't happening right? or what isn't happening right enough?

4) Target Population Description - is a careful examination of the characteristics (ability, education, interests, etc.) of those for whom interactions are intended.

5) Goal Analysis - is to define the indefinable, to tangibilitate the intangible--to help is say what we mean by our important but abstract goals (or fuzzies, as they are called in the book).

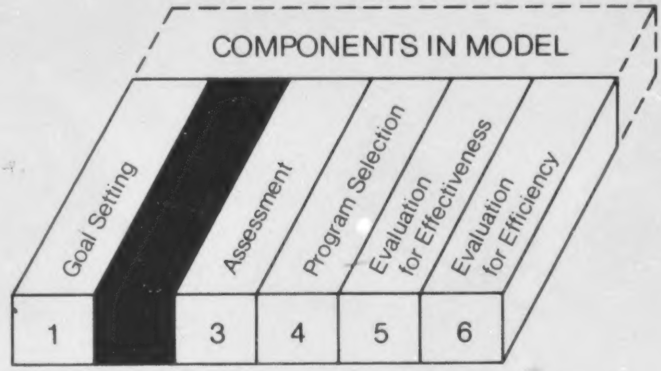
Hierarchy for Goals and Objectives

Developer:
Editors: Dr. Robert J. Armstrong, et al

Source:
Educational Innovators Press, Box 13052,
Tucson, Arizona 85732

Cost:
$3.00 (booklet)

Copyright:
Yes, 1972


COMPONENTS IN MODEL
Goal Setting
Assessment
Program Selection
Evaluation for Effectiveness
Evaluation for Efficiency
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OVERVIEW:

This booklet, designed more for curriculum developers than the classroom teacher, presents guidelines and procedures to facilitate the development and writing of performance objectives at different levels of specificity. The three levels of specificity are as follows:

1. Curriculum Level - Terminal behaviors are expected to occur over long periods of time and proficiency levels usually relate to average or mean results.
2. Course, Program, or Project Level - Time factors may relate to a specific course, unit of instruction, or training activities.
3. Instructional Level - This level is representative of the day-to-day sequence of learner outcomes that are stressed in the classroom or learning activity.

PROCEDURES:

Chapters I, II, and III of this booklet are a review of the material found in EIP's Booklet No. 2 (Developing and Writing Performance Objectives) and No. 7 (Developing and Writing Process Objectives). In these chapters are information and self-tests on the components of an objective and the cognitive, affective, and psychomotor domains and their various levels.

In the remaining chapters, brief descriptive material on the three levels of specificity and many sample objectives at each level are included. Opportunities for the reader to write performance objectives at three levels are provided.

IMPLEMENTATION NEEDS:

The reading of EIP's Booklets 2 and 7 is required to fully comprehend this manual. This booklet, 67 pages in its entirety, could be read and its exercises completed in just a few hours. To become proficient in writing objectives at three levels, however, might take considerably more time. It would be helpful to have someone skilled in writing objectives to aid participants in evaluating their performance in the suggested activities.

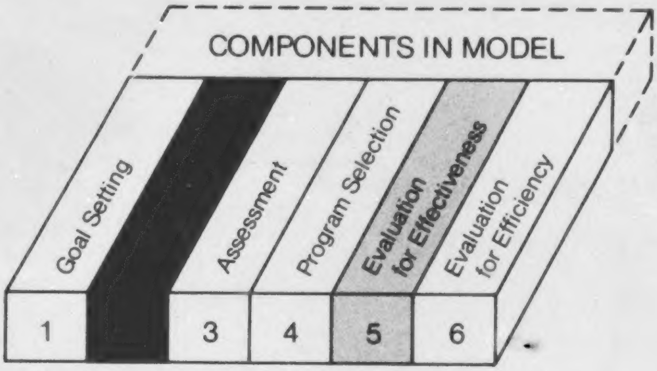
The Individually Prescribed Instructional Module (Unit II, Unit III, and Unit IV)

Developer:
Educational Improvement
Center
South Jersey Region

Source:
Educational Improvement
Center - South Jersey
Region
Main St. & Normal Blvd.
Glassboro, N.J. 08028

Cost:
$6.00

Copyright:
No



OVERVIEW:

This comprehensive booklet, containing 10 units in all, was designed to aid teachers in the development of individually prescribed instructional modules. The program was constructed to accomplish specifically stated objectives; and, at the end, the reader or participant should be able to perform the kinds of behavior prescribed by the objectives for each unit. The attainment of these objectives should enable one to accomplish the major objective of the program, which is to write an individually prescribed instructional module.

The subject of objectives is dealt with most directly in Units II, III, and IV. The objectives of each of these units are as follows:

Unit II - Educational Goals and Performance Objectives

1. The teacher will be able to distinguish between educational goals and performance objectives.
2. The teacher will be able to identify concept and sub-concept.
3. The teacher will be able to state sub-concepts in behavioral terms--observable and measurable.

Unit III - Objectives

1. The teacher will be able to state and identify 3 component parts of behavioral objectives.
2. The teacher will be able to accurately distinguish between objectives written in terms of student behavior and those which are not.
3. The teacher will convert non-behavioral objectives to objectives which adequately describe post-instructional student behavior.

Unit IV - Selecting Objectives

1. The teacher will be able to list and describe the 5 aspects of behavioral objectives.
2. The teacher will be able to state the purpose of objectives and why they must be stated in behavioral terms.
3. The teacher will be able to correctly distinguish between objectives representing cognitive, affective, and psychomotor domains of student behavior.
4. The teacher will be able to identify and write cognitive objectives and classify them in lowest or higher than lowest level of this domain.
5. Given the task of writing objectives for a single period, the teacher will write cognitive objectives at higher than the lowest level of this domain.

PROCEDURES:

This program, an individualized (not programmed) design, for teachers, is very comprehensive in nature. Each unit includes the following:

1. Directions
2. Purpose
3. Pre-Assessment
4. Objectives
5. Learning Activities
6. Post Assessment

The learning activities are varied, and there are more of these activities than are necessary to accomplish each objective. This allows for depth study in any of the areas.

Because this booklet covers such a wide spectrum, units and activities may be extracted to meet the needs of those wishing to use it; or, of course, the program may be used in its entirety. It may also be used as a resource or reference as its exercises are so numerous.

IMPLEMENTATION NEEDS:

Many of the suggested activities require the use of one or more of the following audio-visual aides:

Carousel Slide Projector
Filmstrip Projector
Overhead Projector
Tape Recorder
Cassette Recorder

Although this program is individualized in nature, someone would be needed to coordinate the use of the equipment and materials. Some group discussion (requiring a skilled leader) would certainly enhance the learning activities. The time required to conduct this program will vary greatly according to its selected use.

SPECIAL FEATURES:

A "Recommended Reading List" is included in this manual, as well as a "Bibliography on Definition of Objectives." The booklet contains a comprehensive glossary of approximately 40 words and terms found in the text.

Needs Analysis Methodology:

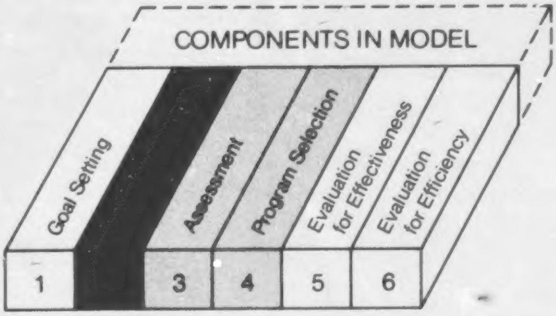
A Prescriptive Set of Rules and Procedures for Identifying, Defining and Measuring Needs

Developer:
Richard T. Coffing
and Thomas E.
Hutchinson

Source:
Richard Coffing, National
Center on Educational
Media and Materials for
the Handicapped, Ohio
State University
Columbus, Ohio

Cost:
This is a 40-page photocopied document. Contact source.

Copyright:
No (1974)



OVERVIEW:

The methodology described provides a deliberate process for decision-oriented inquiry into needs. This orientation is reflected in the methodology's stated purpose: "To provide useful information about needs." The document contains a review of concepts which guide the developmental effort, a description of the general framework or design of the methodology, and references and appendices to illustrate and extend the discussion. The end product of the process is information for making program decisions about needs.

PROCEDURES:

The steps involved in the process are broken down to several levels of specificity with descriptions of varied requirements to meet each. The three main steps are:

(1) Identifying a need that is of concern (which serves to focus the inquiry);

(2) Defining the need which provides the criteria for measuring current status;

(3) Measuring the current status in terms of the desired status which provides information useful in deciding what to do.

In addition, there are five sub-purposes of the Needs Analysis Methodology with corresponding procedures as noted below:

A. Managing the process
    1. Preparation
    2. Planning
    3. Evaluation of needs analysis
    4. Revising

B. Specifying the basic scope and priorities
    1. Contract negotiation

C. Identifying the information user's concerns
    1. Determination of who-what-whom concerns

D. Obtaining and reporting definition of needs
    1. Defining
    2. Definition reporting

E. Obtaining and reporting measurements of need fulfillment
    1. Measuring
    2. Measurement reporting

IMPLEMENTATION NEEDS:

The publication provides a breakdown of procedural steps but refers to other sources for needed detail. The user would need to develop the detail needed for his local situation. The methodology itself was developed for identifying the needs of the handicapped, but it is general enough to be translated to other local school conditions. Procedures would need to be added for measuring and reporting findings.

SPECIAL FEATURES:

The document has appendices containing detailed procedural steps, a corresponding flow chart, a scenario applying the methodology, and a workbook to implement the methodology.

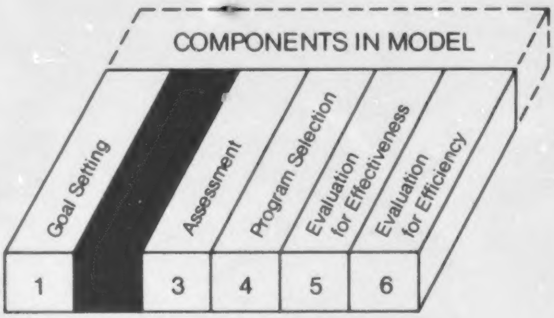
Objectives for Instruction and Evaluation

Developers:
Robert J. Kibler
Donald J. Cegala
Larry L. Barker
David T. Miles

Source:
Allyn and Bacon, Inc.
470 Atlantic Avenue
Boston, Massachusetts

Cost:
$7.95 (hardbound)

Copyright:
Yes



OVERVIEW:

This book was written as a supplementary text to education courses and may be of value to teachers, administrators, curriculum planners, members of school boards, and researchers. Objectives are set forth for the reader at the beginning of each chapter.

The authors outline six unique characteristics of this volume:

1. It provides a single volume material relative to instructional objectives gleaned from a variety of sources.

2. It presents a classroom-tested model of instruction that illustrates the relationships of instructional objectives to the instruction-learning process.

3. It prescribes an approach to objectives based on planning instruction and informing others of instructional goals.

4. It analyzes, in substantially more detail than has been available to date, the elements contained in objectives that are required to plan instruction.

5. It describes procedures for matching objectives and evaluation strategies.

6. It examines the relationship between instructional objectives, criterion-referenced evaluation, and mastery learning.

PROCEDURE:

Written in much detail but more on a theoretical than practical level, this text's major contribution to the area of objectives lies in Chapter 2 and the Appendix.

The nature and function of instructional objectives is covered in Chapter 2. The technique of offering options to the reader, called branching, is used here. The reader may read detailed information on the components of an objective, he may work some programmed material on the subject, or he may do both.

The four Appendices are as follows:

1. Samples of Instructional Objectives
2. Program Text to Teach Students How to Use Instructional Objectives
3. Instrumentation of Bloom's and Krathwohl's Taxonomies for Writing Educational Objectives
4. Sources for Instructional Objectives: National Clearing Houses

Best use of this book might be as a resource, a supplement to other programs on objectives; it may be used in its entirety or selected sections may be chosen for study.

IMPLEMENTATION NEEDS:

Generally, a person would have to devote a large amount of time and effort to read and synthesize the material in this book.

SPECIAL FEATURES:

The technique of branching provides added interest for the reader.

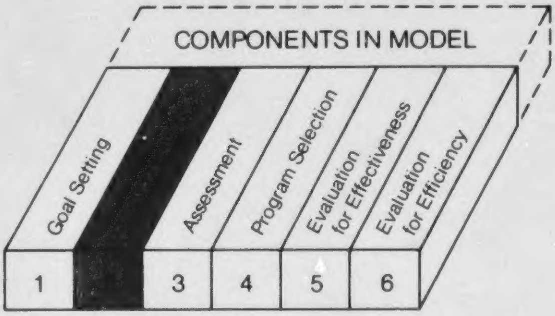
Objectives for Instructional Programs: Active Response Model (Validation Edition)

Developers:
L. D. Harty
B. P. Moore

Source:
Insgroup, Inc.
(Instructional Systems Group)
5855 Naples Plaza,
Suite 204
Long Beach, Ca. 90803
(714) 663-4531

Cost:
$95.00 (kit)

Copyright:
1973



OVERVIEW:

Designed basically for teachers, administrators, and curriculum developers, this program will, with conscientious attention to the instructions given, enable the participant to do the following:

1. Recognize well-formed objectives, improve objectives by re-writing them, and write original objectives.
2. Evaluate the level of complexity of an objective as implied by subject matter and learner task, and subsequently detect gaps and overlaps in sets of objectives.
3. Recognize the relevant position of differing types of objectives in an organizational scheme and write objectives appropriate to one's role in one's own organization.

PROCEDURES:

This program is organized into three steps which participants are asked to follow. The first is the completion of a pretest. It is designed to measure the level of competency in relationship to objectives. It is regarded as a self-survey and serves as a baseline for comparison with the posttest. Step 2 involves viewing a sound/filmstrip entitled "Objectives for Instructional Programs." A four-page response form accompanies the filmstrip. In the last step, participants "respond actively," that is, they complete the manual, the design of which employs techniques similar to those of programmed instruction. The readers are asked to respond actively to various instructions and exercises. Also colleagues work together on certain activities.

Written in somewhat technical terms, the material covered in the "Active Response Manual" includes information on the cognitive, affective, and psychomotor domains, on the derivation of a fully integrated set of objectives which include three different types (program, learner, and organizational), as well as, the various levels, and on creating sequential sets of objectives which lead the learner through increasingly more complex amounts of information.

IMPLEMENTATION NEEDS:

A coordinator would be needed to organize the viewing of the sound/filmstrip and some of the "active response" activities; in addition, appropriate audio-visual equipment would be necessary. Although no specific time allotments are suggested, several hours of concentrated study and writing are required for satisfactory completion of this program.

SPECIAL FEATURES:

A section in the manual labeled "Next Steps" may be helpful to some readers as it suggests possible projects in which use may be made of measurable objectives to improve instructional programs.

The combined use of audio-visual aids, individual activities, and exercises for two persons working together is a somewhat unique approach.

The Appendices appear to be of great value in formulating objectives. They are as follows:

A. A Number of Measures to be Used as Indicators of Sought After Outcomes.

B. A Categorized "Shopping List" of Verbs Useful for Making Objectives More Precise.

C. Various Taxonomies of Learning.

Objectives Marketplace Game

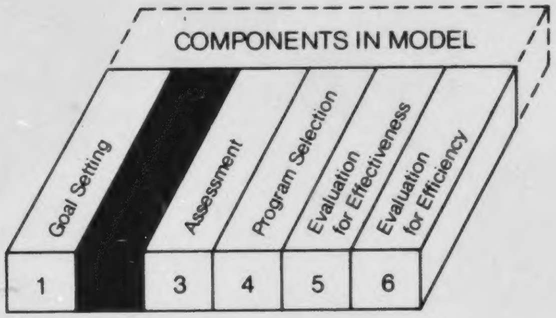
(What You Always Wanted to Know About Performance Objectives But Were Afraid to Ask)

Developer:
Instructional Development
Institute of the National
Special Media Institutes
University of Wisconsin

Source:
Educational Improvement
Center
South Jersey Region
Pitman, N.J. 08071

Cost:
$2.00

Copyright:
1972



OVERVIEW:

The objective of this program, as outlined by the authors, is as follows:

Upon completion of this package, participants (teachers, administrators, board members, and specialists) will be able to write a Terminal Performance Objective (TPO) and derive three first level Enabling Objectives (EO's) from the TPO. 75% of the participants will write a TOP conforming to the prescribed format. EO's will be relevant to the TPO as judged by other participants and/or the staff.

Written in simple, clear language, this manual describes the components of performance objectives by the following method:

A - Audience (Who is doing something?)
B - Behavior (What is to be done?)
C - Conditions (Under what restrictions or givens is it to be done?)
D - Degree (How is it to be accomplished?)

Thus, this is called the ABCD format.

Also covered are the cognitive, affective, and psychomotor domains of objectives and a description of terminal performance objectives and enabling objectives.

PROCEDURES:

This manual is organized in such a way that the reader studies a certain concept or group of concepts and is then tested on his understanding by a quiz or series of quizzes. This part of the Marketplace Objective Game is geared for the individual.

This booklet has another dimension in that there are group activities, organized in a competitive game atmosphere, in which participants write TPO's and EO's.

IMPLEMENTATION NEEDS:

Approximately one to two hours is needed for the individual to read and complete the quizzes in the manual. Two hours or more are required for the groups to play the Marketplace Game. A Game Coordinator would be required to organize group work and to serve as a resource person in evaluating the objectives which are written.

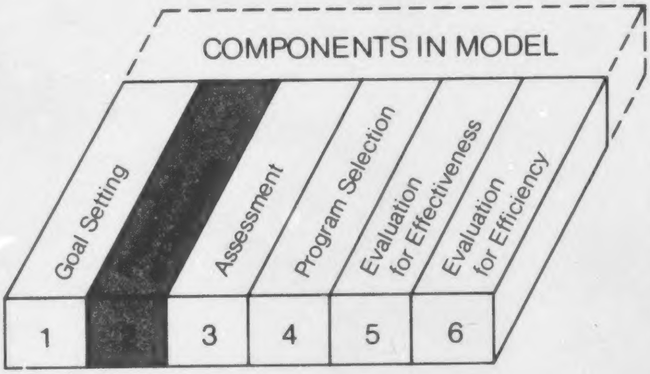
Preparing Instructional Objectives

Developer:
Robert F. Mager, Ph.D.

Source:
Fearon Publishers/
Lear Sigler, Inc.,
Education Division
Belmont, California 94002

Cost:
$1.75/book

Copyright:
Yes, 1962



OVERVIEW:

Preparing Instructional Objectives was written basically for the classroom teacher and provides a description of how to specify and communicate objectives. Characteristics and components of objectives are described.

The objectives of the book itself are clearly defined, and if they are achieved, the reader is able to perform the following tasks:

1. Given one or more instructional objectives, the reader is able to select those stated in performance terms.
2. Given a well-written instructional objective, the reader is able to identify the portion of it that defines minimum acceptable performance.
3. Given one or more performance (test) items, the reader is able to select those appropriate to the evaluation of the objectives.

In addition to the descriptive material found in this book, the format, programmed in nature, is an example of the use of meaningful objectives related to learning how to perform a task. Mager states his objectives in terms of the proposed change in the learner, presents the material in a manner intended to achieve the objectives, and evaluates the degree to which the

the learner has achieved the objectives. These are the same steps he outlines as the procedure in carrying out an objective in the classroom.

This model is slanted toward student-oriented objectives and deals mainly with objectives in terms of cognitive learning. Brief mention is made about objectives related to affective learning, but no concrete steps are suggested in this area.

PROCEDURE:

In using Mager's approach to writing objectives, one must describe "terminal behavior" (what the learner will be doing). In order to do this, the following steps must be taken:

1. Identify and name the over-all act.
2. Define the important conditions under which the behavior is to occur (givens or restrictions, or both).
3. Define the criterion for acceptable performance.

Then, the objective will communicate the teacher's intent to the degree he has described what the learner will be doing when demonstrating his achievement, and how he will know when he is doing it.

The format of this book lends itself to use by an individual, as it is a programmed approach. It was designed so that those understanding the material presented may continue on to new material; those who do not comprehend it are given further reading and exercises.

IMPLEMENTATION NEEDS:

No special staff, skill, or equipment is necessary to implement this program for preparing objectives. Its design is such that the reader is able to read and to evaluate his understanding of the material within about two hours. In applying the technique, however, one could expect to spend a considerable amount of time writing objectives. This amount would vary, depending on the number of areas which one expects to cover.

Priorities Planning

(Judging the Importance of Individual Objectives)

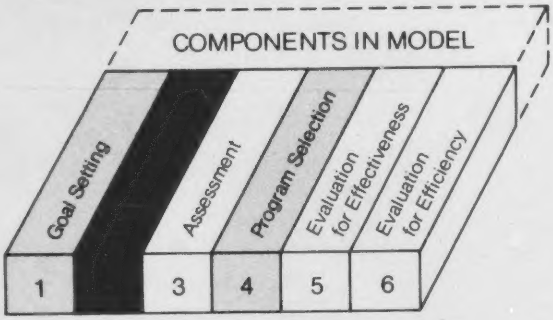
Developer:

Robert E. Stake
Center for Instructional
Research and Curriculum
Evaluation
University of Illinois

Source:
Instructional Objectives
Exchange
Box 24095
Los Angeles, Ca. 90024

Cost:
Contact Source

Copyright:
No



OVERVIEW:

Directed to curriculum planners (administrator, curriculum developer, evaluator, or teacher), this program presents a model for setting priorities in relation to objectives; that is, to rank objectives according to their importance.

A Priorities Planning Sheet is the suggested worksheet for this procedure. The use of these sheets is not intended to change the nature of setting priorities on instructional objectives, but a method by which curriculum planners may be attentive to the various needs, expectations, costs, constraints of instruction.

PROCEDURE:

The Priorities Planning Sheet, on which eight objectives may be reviewed, is a chart-like document divided into six colums. The column headings are as follows:

1. Educational Objective - Each objective being reviewed is entered in this column.
2. Need as seen by (teacher, learner, community) - A median response for each objective, ranked "very high need," "high need," "middle need," "low need," or "very low need" by those surveyed, is recorded in this box.

3. Resource Allocation - Time, estimated in "minutes for study" or "time to reach criterion" and special materials or personnel to accomplish the objective are listed.
4. Pay-off Probability - There are estimates of success in reaching the objective and are ranked "very high," "high," "middle," "low," and "very low."
5. Special Conditions - This category provides opportunity to record such items as individual differences and dependency of one objective on another.
6. Priority Planning - With information in some or all four of the middle columns, the curriculum planner is able to make reasonable estimates of the priority for each objective. Numbers, letters, symbols, or words such as "very high," "high," etc. may be used.

For each objective being considered, the information outlined above is placed in the appropriate column. With this information, decisions may be made as to whether to continue or discontinue, to change or to modify the objectives.

IMPLEMENTATION NEEDS:

Much time and selected personnel would be necessary to complete a program such as this one. Worksheets in quantity are available from the Instructional Objectives Exchange.

SPECIAL FEATURES:

The very emphasis of this model, that of setting priorities with relationship to instructional objectives, differs greatly from all other models reviewed.

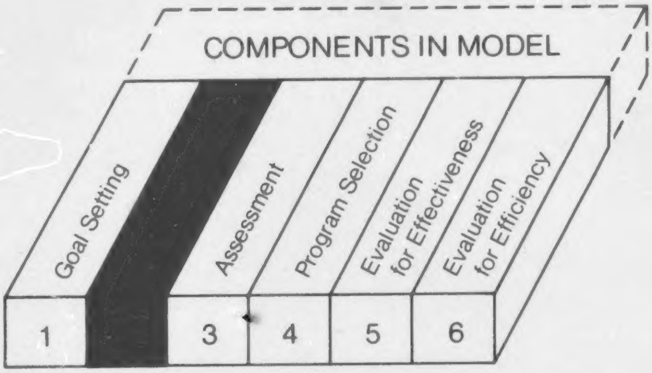
Taxonomy of Educational Objectives
The Classification of Educational Goals
Handbook I: Cognitive Domain

Developer:
Benjamin S. Bloom, et al

Source:
David McKay Co., Inc.
New York

Cost:
$2.25/book

Copyright:
Yes, 1956



OVERVIEW:

The material presented in this book is an attempt to build a taxonomy (classification) of goals of our educational system. It is a source of general help to all teachers, administrators, professional specialists, and research workers who deal with curricular and evaluation problems. It is especially intended to aid these professionals in discussing these problems with greater precision.

In general, this taxonomy may help one gain a perspective on the emphasis given to certain behaviors by a particular set of educational plans. It may help readers to specify objectives so that it becomes easier to plan learning experiences and prepare evaluation devices. Researchers may find the categories of use as a framework for viewing the educational process and analyzing its workings. More specifically, the focus of this manual is on the cognitive portion of the taxonomy, the one which includes those objectives which deal with recall and recognition of knowledge and the development of intellectual abilities and skills.

Part I of the Handbook is intended to develop some insight into the principles of development and organization of the taxonomy, to develop an understanding of the nature and importance of the cognitive domain, and to give some help on the way in which objectives may be grouped in the taxonomy.

Part II is the actual taxonomy. The categories are listed sequentially, and each one contains, in order, the following:

1. A definition of the category;
2. Illustrative objectives;
3. A discussion of problems and considerations in testing objectives in the category;
4. Examples of items testing objectives in the category.

The appendix is a condensed version of the taxonomy of the cognitive domain of educational objectives.

PROCEDURE:

The writers caution the reader against reading this book from cover to cover as though it were narrative material. It is suggested one read the introduction and the condensed version of the taxonomy in the Appendix in order to get a quick overview. It is further suggested that the chapter on educational objectives and curriculum development followed by the chapter on the classification of educational objectives and test exercises will help the reader to attain a more thorough understanding of the taxonomy and its possible uses. The remaining sections should be read as one finds them relevant to specific teaching, curriculum, testing, and research problems.

IMPLEMENTATION NEEDS:

An overview of this material could be accomplished in a matter of an hour or two. Careful study to attain thorough knowledge and understanding would require many hours.

In addition, the reading of Handbook II: Affective Domain would be necessary to cover more completely material on the taxonomy of educational objectives.

SPECIAL FEATURES:

The material presented here is essential to the development of behavioral objectives and is the basis on which many programs on objectives are founded. Because this book is more theoretical than practical, it may be used as a reference, a resource, or supplement to other models.

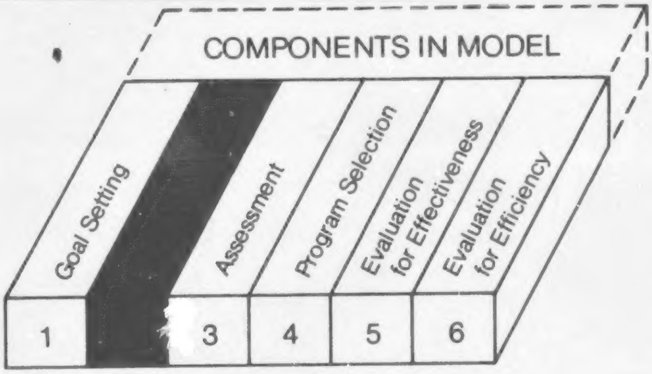
Taxonomy of Educational Objectives
The Classification of Educational Goals
Handbook II: Affective Domain

Developers:
David R. Krathwohl
Benjamin S. Bloom
Bertram B. Masia

Source:
David McKay Co., Inc.
New York

Cost:
$2.50/book

Copyright:
Yes , 1964



OVERVIEW:

This Handbook's intent and format are modeled after Handbook I: Cognitive Domain; its focus, however, is on the affective domain, the domain which covers feelings, emotions, degrees of acceptance or rejection.

Part I familiarizes the reader with the nature of the affective domain and the classification structure for it. Part II includes a complete and detailed description of the categories and sub-categories of the affective domain and gives sample objectives and test items for each of the categories.

Appendix A is a condensed version of the affective domain. Since frequent references are made to the cognitive domain, its taxonomy is contained in Appendix B.

PROCEDURE:

This handbook should be used in similar fashion to Handbook I. A clear and quick overview may be accomplished by reading Chapters 1, 3, and 5 and Appendix A. Other sections should be read and studied as they become relevant to curriculum or research needs.

IMPLEMENTATION NEEDS:

An overview of the affective domain could be done in an hour or two. However, careful study of the entire manual would require a considerable amount of time.

Too, before attempting to learn about the affective domain, Handbook I: Cognitive Domain should be read.

SPECIAL FEATURES:

This book, along with Handbook I is the basis on which many other books and programs have been written. It is a necessary tool which should be available to all who are doing any type of work related to objectives.

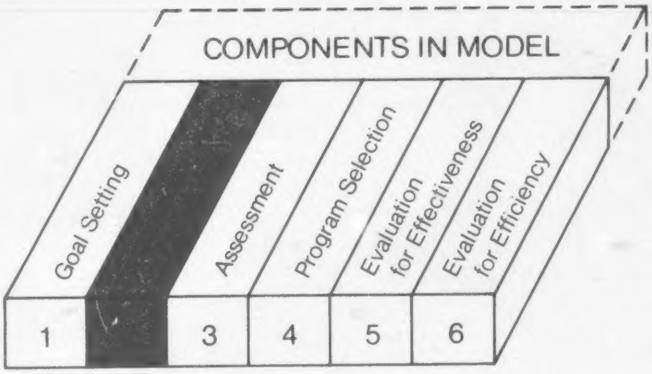
A Taxonomy of the Psychomoter Domain

Developer:
Anita J. Harrow

Source:
David McKay Co., Inc.
New York, New York
Library of Congress
Card Col. #74-185136

Cost:
$7.95 (softback)

Copyright:
1972



OVERVIEW:

The specific interest of this text is to provide a functional written taxonomy for the psychomotor domain to be utilized for the classification of observable movement behaviors. The classification levels within the model are hierarchically arranged along a continuum from the lowest level of psychomotor behavior to the highest level. This taxonomy will make it possible for educators to identify and classify behaviors unique to the psychomotor domain. It is designed to act as a guide for educators concerned with preparing a meaningful sequential curriculum utilizing appropriate instructional strategies and selecting relevant measurement techniques.

PROCEDURES:

The text presents a model for classifying movement behaviors unique to the psychomotor domain. The material is presented in the following format:

I INTRODUCTION AND EXPLANATION OF THE PSYCHOMOTOR DOMAIN

... An Overview of the Model
... Importance of Psychomotor Behaviors
... Rationale for the Development of a Taxonomy of the Psychomotor Domain
... Problems Inherent in Classifying Movement Behaviors

- II BACKGROUND INFORMATION
  - Movement Theories
  - Models for Classifying Psychomotor Behaviors
  - Summary

- III TAXONOMY FOR THE PSYCHOMOTOR DOMAIN
  - Introduction
  - Cautions
  - A View of the "Standard Model"
    - Classification Level One - Reflex Movements
    - Classification Level Two - Basic-Fundamentals Movements
    - Classification Level Three - Perceptual Abilities
    - Classification Level Four - Physical Abilities
    - Classification Level Five - Skilled Movements
    - Classification Level Six - Non-Discursive Communications
  - Summary Outline of Psychomotor Taxonomy

- IV UTILIZING THE PSYCHOMOTOR DOMAIN WHEN WRITING BEHAVIORAL OBJECTIVES
  - Special Consideration

- V REVIEW OF LITERATURE
  - A Simplified Introduction to the Physiology of Movement
  - General Literature
  - Developmental Theories
  - Terminology
  - Summary

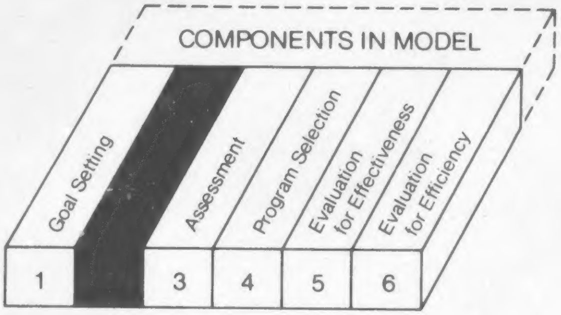
"Teacher Competency Development System"

Developer:
Center for the Study
of Evaluation
Los Angeles, California

Source:
Prentice-Hall, Inc.
Englewood Cliffs, N.J.

Cost:
Kit of 26 teacher booklets
and supplementary materials
is $199.95.

Copyright:
Yes 1973



OVERVIEW:

Educational Objectives - Booklet 1
Selecting Appropriate Educational Objectives - Booklet 2
Humanizing Educational Objectives - Booklet 5
Identifying Affective Objectives - Booklet 6
Defining Content for Objectives - Booklet 7

Each booklet in Phase I deals with a different aspect of behavioral objectives. Each is designed, basically, for the classroom teacher, is somewhat programmed in nature, and is objectives oriented. The purpose of the booklets is as follows:

Booklet 1	was designed so that those completing it will recognize and be able to formulate operationally-stated instructional objectives.
Booklet 2	was designed to develop a positive attitude toward behaviorally-stated objectives.
Booklet 5	suggest ways to generate an objective which deals with process as opposed to more traditional forms of content. Needs assessment procedures which involve the students as primary sources of objectives are discussed, and ways of implementing objectives are given.

D

Booklet 6 outlines a strategy for the specification of affective objectives.

Booklet 7 promotes the point of view that an objective which covers a broad range of test items is more useful than one which is equivalent to a single test item.

PROCEDURE:

These pamphlets may be used individually or as a set, depending on the needs of the users. Each booklet sets forth objectives for the reader, and then presents narrative material and cartoon-like pictures on the subject covered. This material is interspersed with questions and practice exercises for the reader and is concluded by a mastery test.

Covering a wide range of information about behavioral objectives, this program deals with objectives related to subject content, as well as, student process. In addition, it deals with objectives in the areas of the cognitive, affective, and psychomotor domains.

IMPLEMENTATION NEEDS

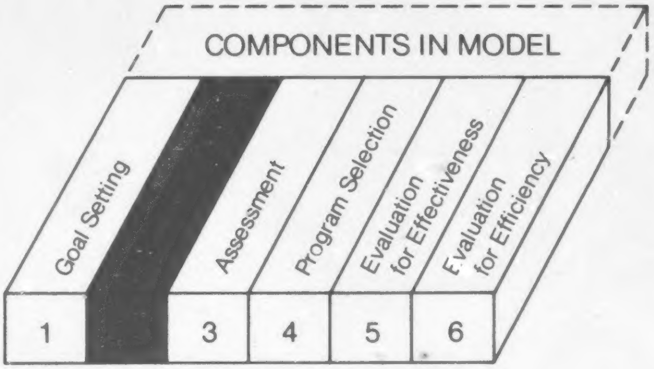
Although these booklets may be read and completed without the use of special staff, a more effective use of the material might be to have a professional person, skilled in the use of and having a broad knowledge of behavioral objectives, to discuss the practice exercises with the reader. Without the help of such a person, the reader could probably read and complete the exercises in one booklet in about 45 minutes, and complete the set of five in three to four hours.

A Training Program Behavioral Objectives

Source:
Educational Improvement
Center (E.I.C.)
South Jersey Region
Glassboro-Woodbury Road
Pitman, New Jersey 08071

Cost:
Contact Source

Copyright:
No (1969)



OVERVIEW

Through the use of transparencies and accompanying narrative material, this E.I.C. training program is designed to familiarize the professional educator with the components of a behavioral objective. Also, concise explanations of the affective, cognitive, and psychomotor classifications for learning objectives are given. This material is of an introductory nature, assuming that the participants know little of the content of a properly prepared behavioral objective. Unlike some other models, there are no built-in opportunities for the trainee to do practice exercises related to the topic.

PROCEDURES:

This material, consisting of a set of 27 transparencies and an accompanying explanatory booklet, was designed to be used with a group of teachers. Use is made of simple and concise statements and illustrations to explain the following:

1. The distinction between educational goals and instructional objectives
2. Aspects of objectives (deriving, selecting, specifying, achieving, evaluating)
3. Component parts of objectives (action terms, conditions, standards)

4. Types of objectives (motor performance, verbal, and discrimination)

5. Taxonomy of objectives (cognitive, affective, and psychomotor domains)

IMPLEMENTATION NEEDS

A professional person with a broad knowledge of and practical experience in the area of behavioral objectives would be needed to present this program and, more especially, to answer questions related to it. Also needed would be an overhead projector. The presentation could be made in approximately an hour's time.

SPECIAL FEATURES

The content of this program is broad-based, encompassing a wider range of material than many other models.

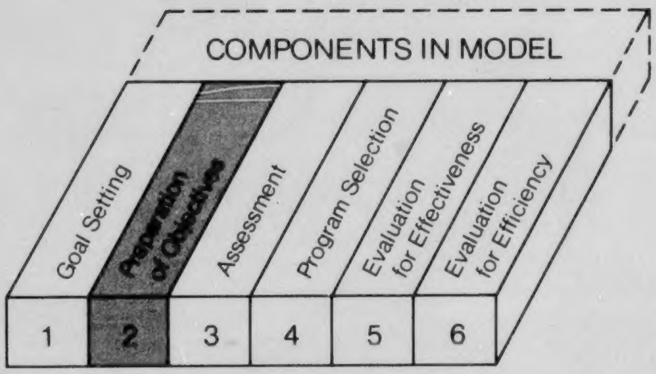
Writing Instructional Objectives

Developers:
Caroline Metheny Dillman
Harold F. Rahmlow

Source:
Fearon Publishers
Lear Sigler, Inc.,
Education Division
6 David Drive
Belmont, Ca. 94002

Cost:
$2.50/book

Copyright:
Yes, 1972


COMPONENTS IN MODEL
Goal Setting
Preparation of Objectives
Assessment
Program Selection
Evaluation for Effectiveness
Evaluation for Efficiency
1
2
3
4
5
6

OVERVIEW:

Written primarily for teachers, the main thrust of this book, as the title indicates, is the writing of instructional objectives. The authors' goals are as follows:

1. To acquaint the reader with resource materials on objectives and suggest ways they might be used.
2. To list and explain useful points to be considered when writing objectives.
3. To explain the importance of and a technique for writing test items for objectives.
4. To present varying viewpoints on the use of verb forms most commonly used for objectives.
5. To discuss style technicalities.
6. To illustrate steps in how an objective is developed from rough draft form to an acceptable finished product.
7. To give some original objectives and provide opportunity for revision and evaluation.

PROCEDURE:

This model was designed for use by the individual. Although suggested references are given, this book provides very little background reading, as the authors presume the reader has already done research previous to his encounter with this particular program.

The following is the checklist for objectives suggested by Dillman and Rahmlow:

1. Level of specificity: Is the objective too specific or too broad?
2. Principal performance: Is the skill called for in the objective the principal performance sought, or is it an indicator behavior?
3. Overt behavior: Is the behavior observable and can it be evaluated?
4. Method or process: Has the method, if it is important, been specified?
5. Evaluation or performance criteria: Are criteria for evaluation included in the objective?
6. Relevant conditions: Have any relevant conditions been included?
7. Student-directed performance: Is the objective directed to the student?
8. Appropriate reading level and vocabulary: Is the objective written in appropriate vocabulary at an appropriate reading level?

Also included is a sample checklist for test items.

Using the suggested worksheet, this is the step-by-step procedure for the actual writing of the objectives:

1. Jot down the general idea for an objective.
2. Write on the worksheet a first rough draft.
3. Write a sample test item.
4. Use the checklist to review the objective.
5. Review the sample test item.
6. Copy the corrected second draft in the space provided on the worksheet.
7. Read over the final version, making any necessary editorial and grammatical changes.

Twenty-five sample objectives are given for revision by the reader. These samples deal mainly with subject content (cognitive), rather than the affective or psychomotor domain, and range in level from first grade through adult education.

IMPLEMENTATION NEEDS:

Extra duplicated copies of the sample worksheet might be helpful in conducting this program. A coordinator or leader might be useful in helping the participants evaluate their performance in the practice exercises.

SPECIAL FEATURES:

An element of humor is used to emphasize some important points.

Writing Performance Objectives

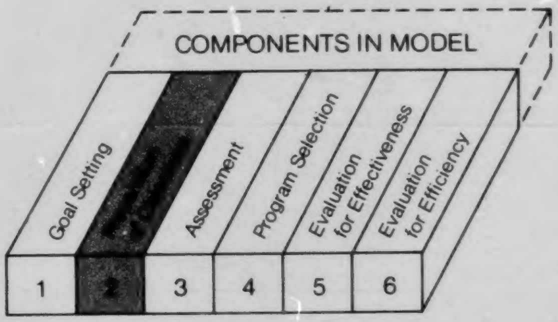
A Programmed Course for the Writing of Performance Objectives
Instructor's Manual for Teachers and Administrators

Developer:
Program Development Center
of Northern California
Butte County Schools Office
Chico, Ca. 95926

Source:
Commission on Educational
Planning
Phi Delta Kappa, Inc.
P.O. Box 789
Bloomington, In. 47401

Cost:
Model is Part II of PDK
Goal Setting Kit $3.00.

Copyright:
No (1972)



OVERVIEW:

This two-manual program, extensive and somewhat technical, is written primarily for classroom teachers and their instructor. One booklet contains programmed material for participants and the other contains background material, lesson plans for group meeting, worksheets, and other essential information for the instructor.

Upon completion of the program, the participants will be able to do the following:

1. Identify 2 terms: goal statements and similar goals.
2. Identify the 3 parts of a performance objective.
3. Write 5 performance objectives.
4. Write cognitive objectives.
5. Recognize psychomotor objectives.
6. Recognize and write affective objectives.
7. Recognize and write 3 levels of performance objectives.

PROCEDURE:

This program, to be completed in four weeks, includes independent and group activities which are designed to improve one's skill in writing performance objectives. Between each of the four consecutive weekly meetings, the participants are required to work independently through the programmed material contained in the student's booklet. Listed on the next page are the procedures to be followed:

Meeting 1 - Orientation meeting in which the instructor will outline procedures to be followed and to present the rationale for using performance objectives.

Independent Activity 1 - Complete Frames 1 through 34 of the Programmed Material.

Meeting 2 - A critique of the objectives participants have written and group discussion and instruction.

Independent Activity 2 - Complete Frames 35 through 115 in the booklet.

Meeting 3 - Critique of the objectives participants have written and group discussion and instruction.

Independent Activity 3 - Complete Frames 116 through 136.

Meeting 4 - (Concluding meeting) Similar in format to the preceeding meetings.

The pages following the programmed items include 6 assignments. They were designed to be completed during training sessions.

IMPLEMENTATION NEEDS:

A booklet is required for each participant in this program, and a manual is needed for each instructor. A series of four consecutive weekly meetings, approximately an hour and a half to two hours in length, is required to execute this course of study, as well as independent time between each meeting for the participants to work on the programmed material. Professional personnel, proficient in the area of performance objectives, is essential to conduct the four structured meetings.

SPECIAL FEATURES:

Unlike many other models, this program is a blending of group and individual activities. Clear directions are given for both types of activities.

Writing and Using Behavioral Objectives

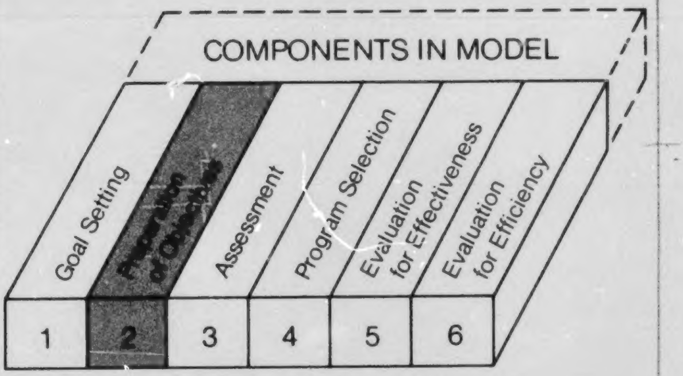
A Learning Packet for Teachers, Students, and Administrators

Developers:
Sam Leles
Raymond Bernabei

Source:
University Supply Store
University of Alabama
34586

Cost:
$3.50

Copyright:
Yes (Lern Associates)
1972


COMPONENTS IN MODEL
Goal Setting
Preparation of Objectives
Assessment
Program Selection
Evaluation for Effectiveness
Evaluation for Efficiency
1
2
3
4
5
6

OVERVIEW:

Teachers (in-training and in-service), supervisors, curriculum directors, and administrators are the professionals for whom this program was written. It was designed to aid participants in thinking about objectives and to grapple with ways in which objectives may be utilized for meaningful selections of content, methods, materials, and evaluation procedures. This packet was written to help the reader learn the following:

1. How to identify meaningful objectives.
2. How to write meaningful objectives.
3. How to use meaningful objectives.

PROCEDURES:

In order to facilitate the meeting of the objectives of this program, approximately 25 pages of background material are given. It includes information on the development of the use of behavioral objectives, the cognitive, affective, and psychomotor domains, and four basic characteristics of behavioral objectives. This information is followed by numerous practice exercises designed to reinforce skill in identifying, writing, and using meaningful objectives. A pretest and posttest are included to determine the participant's gain.

The packet culminates in a buzz session which requires participants (organized into small groups of 5 to 7 members) to translate theory into practive and, more specifically, to write and to use objectives. A method for the selection of group leaders and recorders is outlined.

Following the buzz session, all participants meet together and the group recorders are asked to share the results of their group discussions.

IMPLEMENTATION NEEDS:

The authors give no indication as to the anticipated time required to complete this packet. Although the time factor would vary according to how this booklet is used, several hours would be a minimum estimate. Someone would be needed to organize the small groups for discussion and to lead the concluding session in such a way that it is a meaningful experience for the participants.

SPECIAL FEATURES:

This program, like few others, includes individual activities, as well as, small and large group activities.

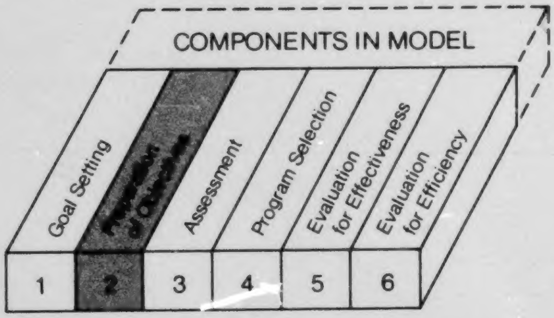
Writing Worthwhile Behavioral Objectives

Developer:
Julie S. Vargas

Source:
Harper/Row, Publishers Inc.
49 East 33rd Street
New York, N. Y. 10016

Cost:
Contact publisher.

Copyright:
1972



OVERVIEW:

This is a self-instructional book designed to help you write worthwhile, behaviorally stated teaching objectives that will increase the values of your courses and their relevance to your students' life outside school. It does not teach how to write objectives for attitudes (though the topic is considered briefly); it is restricted to what is often called the cognitive domain:

After completing the book the user should be capable of:

1. selecting from a list of ten to twenty objectives the five that are the most behavioral.
2. telling which of the necessary criteria (referring to the behavior of the student, describing observable behavior, and specifying a level of criterion of acceptable performance) a given objective meets or fails.
3. revising nonbehavioral objectives.
4. writing behavioral objectives for general objectives or test items.
5. classifying given objectives in the major categories of Bloom's taxonomy of educational objectives.
6. replacing what Bloom calls "knowledge level objectives" with objectives that fall in the higher categories of Bloom's taxonomy.

7. given a textbook chapter, writing objectives for a unit using that chapter.

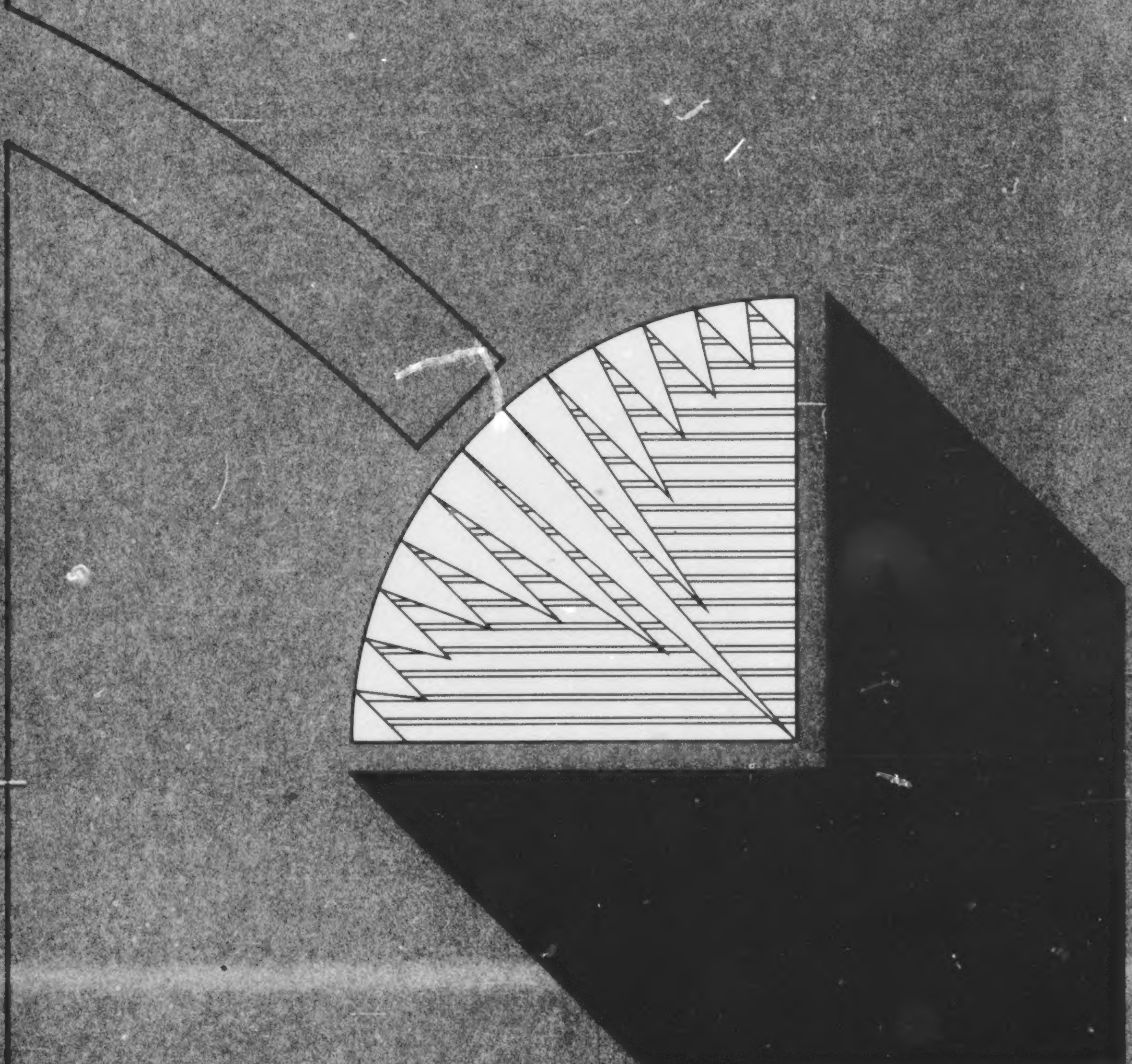
The unit should have all levels of Bloom's taxonomy represented.

PROCEDURES:

This book contains both text and exercises. The text presents the arguments for quality objectives; the exercises teach you how to write them. To avoid unnecessary practice, each chapter of exercises begins with a pretest covering the skills taught. If you score 90 percent or better on the pretest, you may skip the chapter and go on to the next. If you score less than 90 percent, then you are expected to do the exercises. And, of course, you can work through the book at your own speed.

component 2a

objectives banks resource listings



C.S.E. Hierarchial Objectives Charts

Source: Center for the Study of Evaluation
University of California
Los Angeles, California

Cost: $12.00

Copyright: No

CONTENT AND ORGANIZATION

Goals and objectives of elementary school education are outlined in chart form. Forty-one goal areas and one hundred and four sub-goals or objectives have been categorized in a hierarchy. The charts contain objectives ranging from broad goal areas to more specific objectives which lead to but do not include behavioral objectives. The goals cover both cognitive and affective areas and range from such categories as Development of Personality and Social Development to Geometry, Sociology, and Reasoning.

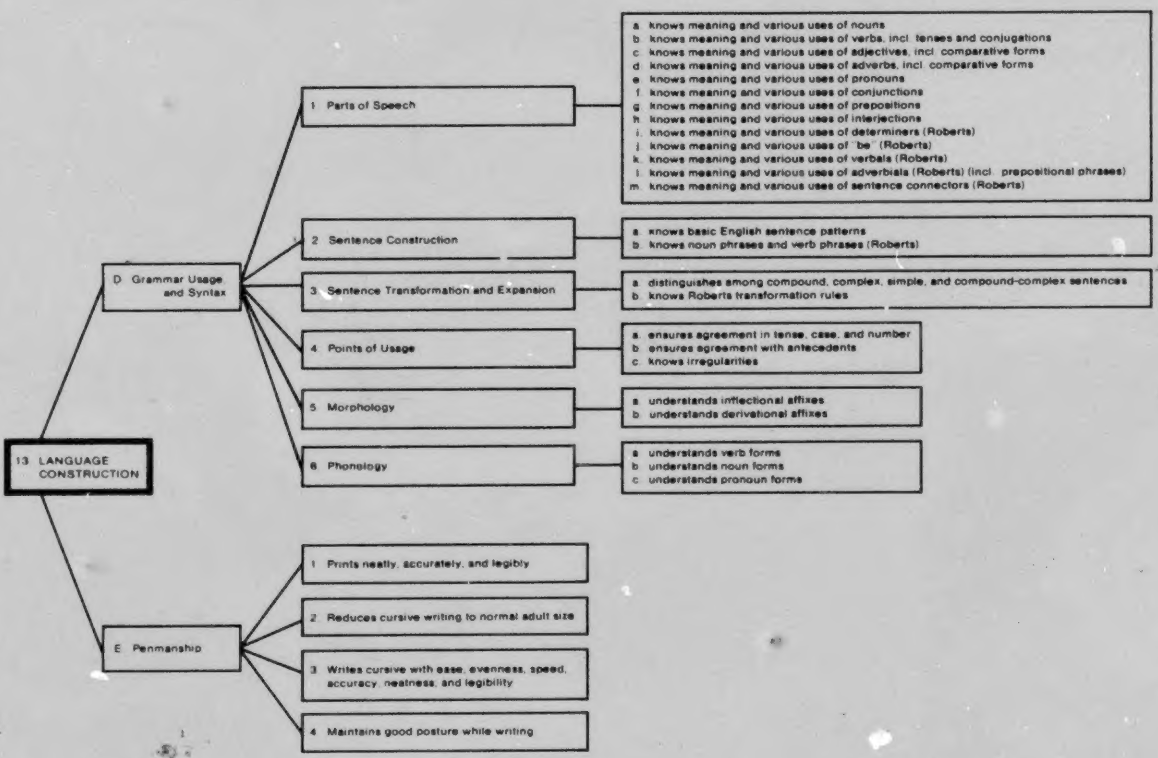
The format of the charts is best described by illustration. (See "Sample Objectives" on next page.)

SPECIAL FEATURES

Higher level thinking skills are covered in these charts as well as affective learnings. In addition, this hierarchical format is not commonly found among the other objectives banks.

The charts may be used in the development of a criterion-referenced evaluation system.

SAMPLE OBJECTIVES: **(Format of Charts)**



- 13 LANGUAGE CONSTRUCTION
  - D Grammar Usage and Syntax
    - 1 Parts of Speech
      - a. knows meaning and various uses of nouns
      - b. knows meaning and various uses of verbs, incl. tenses and conjugations
      - c. knows meaning and various uses of adjectives, incl. comparative forms
      - d. knows meaning and various uses of adverbs, incl. comparative forms
      - e. knows meaning and various uses of pronouns
      - f. knows meaning and various uses of conjunctions
      - g. knows meaning and various uses of prepositions
      - h. knows meaning and various uses of interjections
      - i. knows meaning and various uses of determiners (Roberts)
      - j. knows meaning and various uses of "be" (Roberts)
      - k. knows meaning and various uses of verbals (Roberts)
      - l. knows meaning and various uses of adverbials (Roberts) (incl. prepositional phrases)
      - m. knows meaning and various uses of sentence connectors (Roberts)
    - 2 Sentence Construction
      - a. knows basic English sentence patterns
      - b. knows noun phrases and verb phrases (Roberts)
    - 3 Sentence Transformation and Expansion
      - a. distinguishes among compound, complex, simple, and compound-complex sentences
      - b. knows Roberts transformation rules
    - 4 Points of Usage
      - a. ensures agreement in tense, case, and number
      - b. ensures agreement with antecedents
      - c. knows irregularities
    - 5 Morphology
      - a. understands inflectional affixes
      - b. understands derivational affixes
    - 6 Phonology
      - a. understands verb forms
      - b. understands noun forms
      - c. understands pronoun forms
  - E Penmanship
    - 1 Prints neatly, accurately, and legibly
    - 2 Reduces cursive writing to normal adult size
    - 3 Writes cursive with ease, evenness, speed, accuracy, neatness, and legibility
    - 4 Maintains good posture while writing

DIMOS I

Directory of Sources of Measurable Objectives—First Edition

Developer: Robert H. Pinney

Source: Upper Midwest Regional Educational Laboratory
1640 East 78th Street
Minneapolis, Minnesota 55423

Cost: Contact source.

Copyright: Yes, 1972

CONTENT AND ORGANIZATION:

This model is, as its title indicates, a directory of sources of measurable objectives. Listed in this directory are what sets of objectives have been written, by whom, for what areas of the curriculum, for what intended purposes, and in what format.

This first edition contains a listing of some 150 sets of objectives from a variety of sources. In this manual, these listings are organized into 20 sections as follows:

Agriculture
Art
Business
Distributive Education
English/Reading/Language
Foreign Languages
Health Occupations
Health, Safety, Recreation, and Physical Education
Home Economics
Industrial Arts
Mathematics
Music
Natural Sciences
Office Occupations
Social Sciences
Technical Education
Trade and Industrial
General Elementary/Secondary Education
Handicapped
Co-curricular Activities

Some categories have numerous listings. For several of the groupings listed, however, no sets have yet been located. The information provided is brief and easy to discern, as it is organized in chart form.

SPECIAL FEATURES:

Any individual or group endeavoring to write sets of objectives or reviewing objectives banks would surely find this catalog of value. Its completeness is unique.

Instructional Objectives: A National Compendium

Developers: Michael G. Kuhn and Lorraine R. Gay
State University System of Florida, Tallahassee
Florida State Department of Education
Division of Elementary and Secondary Education
Tallahassee

Source: ERIC Document #'s ED 062 743 and EC 041 993
c/o Computer Microfilm International Corporation
Post Office Box 190
Arlington, Virginia 22210

Cost: Microfiche $0.65
Hardcopy $6.58

Publication Date: May 1972

Copyright: No

CONTENT AND ORGANIZATION:

This compendium is an annotated bibliography of materials containing instructional objectives and of objectives-based materials collected from institutions, school systems, state departments of education, and commercial producers of educational materials. Organization of listings is by topic, grade range, and alphabetical order. A listing of macro-collections, compilations which contain objectives in a number of different areas and many objectives per area, is followed by a listing of micro-collections, which contain objectives in at least three different areas. Other sections list materials containing educational objectives for specific curriculum areas: early childhood, creative arts, language, mathematics, reading, science, social studies, and vocational-technical education. Final sections list sources (bibliographies and reports) containing objectives or references concerning objectives, materials dealing with development and use of objectives, and teacher training materials which consist of or contain instructional objectives. Information given for each entry includes title, grade range, publisher, price, brief description of material, and a list of topics covered in the material.

The Compendium is organized by topic, grade range and alphabetical order. Collections have been divided into MACRO-COLLECTIONS and MICRO-COLLECTIONS. MACRO-COLLECTIONS contain descriptions of compilations (arranged alphabetically) which contain objectives in a number of different areas and which contain many objectives per area. MICRO-COLLECTIONS contain descriptions of collections which contain objectives in at least three different areas. These are arranged alphabetically within intended grade range. Descriptions of objectives in the curriculum areas, e.g. MATHEMATICS, are also arranged alphabetically within grade range, with the exception of VOCATIONAL-TECHNICAL EDUCATION; descriptions in this category are ordered alphabetically by vocational area. SOURCES OF SOURCES contain descriptions of bibliographies and reports which contain either objectives or references concerning objectives; these are arranged alphabetically by title. UTILIZATION OF OBJECTIVES contains descriptions of materials which deal with the development and utilization of instructional objectives, also arranged alphabetically by title. Finally, the TEACHER EDUCATION section contains annotations of available teacher training materials which consist of, or contain, instructional objectives. These are arranged alphabetically, by topic, and by title within topic. SOURCES OF SOURCES, UTILIZATION OF OBJECTIVES, and TEACHER EDUCATION were not originally intended to be sections in the Compendium. However the number of unsolicited entries received warranted their inclusion. Consequently, in contrast to other sections of the Compendium, these three sections are in no way to be considered comprehensive.

Descriptions of materials are presented in the words of the developer whenever possible. Annotations include the title of the materials, the intended grade range (K = kindergarten, P = primary, I = intermediate, JR = junior high, SH = senior high, A = adult, or post-secondary), name and location of the publisher, and the price of the materials when known. Since it would be impossible to relate all important aspects of each reported effort, this summary presents a brief description of the materials and a listing of the topics included. Using this approach, interested persons may examine the annotations in the area or areas of their choice and identify sources of objectives relevant to their needs.

To enhance the usability of this document, the name and address of the contact person for each entry in the Compendium are presented on the page opposite the page on which the entry originates. Although many more persons were contacted, they either did not respond, did not have materials to contribute, had materials which are not yet available, or responded after the Compendium had been compiled. Late arrivals will be integrated into a revised version at a later date.

SAMPLE ENTRY:

5. PLAN: Master Objectives (K-SH) - Westinghouse Learning Corporation, Palo Alto, Califronia

Description: A program of individualized education in Reading, Language Arts, Mathematics, Science, and Social Studies which can be adapted to each pupil's needs, abilities, interests and goals. The major components of the program are a set of instructional objectives, a variety of study plans to achieve these objectives, and a computer support system to help plan student learning and monitor student progress. Objectives for the Guidance program are also included.

Topics included:

Primary Objectives

Language Arts

- Orientation to PLAN
- Readiness
- Language Arts Skills
- Reading Skills
- Writing

Social Studies

- History
- Sociology
- Geography
- Economics

Science

- Biology
- Psychology
- Physics
- Chemistry
- Geology
- Meterology
- Inquiry Development - Observing/Perceiving
- Inquiry Development - Taxonomic/Classifying
- Inquiry Development - Experimenting

Mathematics

Numerals
Place Value to 9999
Roman Numerals
Addition of 4-digit Numbers
Subtraction of 4-digit Numbers

Multiplication Facts
Division with 1-digit Numbers
Addition of Like Fractions
Patterns of Objects
Functions of a Graph

Geometric Figures
Value of Coins
Time to the Minute
Linear Measure to 1/4 inch
Temperature Readings
Elements of a Set
Set Notation
Number Sentences
Word Problems

Intermediate Objectives

Language Arts

History & Dialectology
Speaking
Reading-Phonetic Analysis & Structural Analysis
Reading-Critical Reading Skills
Reading-Literature & Literary Form
Writing-Correspondence Skills
Listening
Reading-Study Skills
Reading-Organizational Skills
Reading-Interpretation Skills
Writing-Form & Analysis
Writing-Creative Writing
Writing-Structure
Writing-Mechanics
Writing-Study Skills
Non-Verbal Communication

Where Behavioral Objectives Exist

Developer: Joseph E. Barrett, Editor

Source: Project SPOKE
37 West Main Street
Norton, Massachusetts 02766

Cost: $5.00

Copyright: Yes, 1974

CONTENT AND ORGANIZATION

This manual has been compiled as a resource to assist school district personnel in building or modifying curricula using behaviorally-stated objectives. It contains an outline of 58 available objectives banks. For each bank described, the following information is given:

- Name
- Distributor
- Developer
- Target Audience
- Subject Area
- Cost
- Description

Each page in the booklet contains a single model description, and the models are in random order in the booklet. However, cross reference guides are given by subject and grade for ease in locating objectives to fulfill a given need.

SAMPLE OBJECTIVE

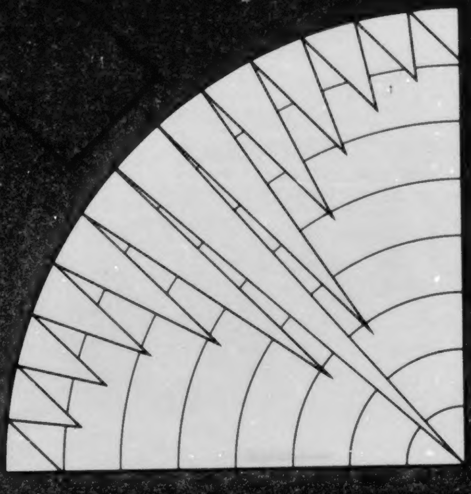
(Not applicable)

SPECIAL FEATURES

This booklet would be of great value for anyone endeavoring to locate or identify existing objectives banks.

component 2b

objectives banks



CBRU Resource Manuals
(Computer Based Resource Unit)

Source:	Dr. Kenneth Cross Research and Development Center University College at Buffalo Buffalo, New York
Cost:	Varies greatly as to the number of units and number of students involved.
Copyright:	No

CONTENT AND ORGANIZATION:

Computer Based Resource Units are a planning aid to the classroom teacher. CBRU's supply many suggestions for content, activities, measuring devices, and materials, all geared to behavioral objectives for numerous academic and skill areas.

Each unit contains a large number of behaviorally stated objectives. These objectives are organized around sub-topics in order to facilitate planning of the teaching unit. The teacher selects objectives for the entire class and may also select objectives for individual students. The manual from which each of the custom-designed units is ordered contains banks of suitable objectives for each unit. These may be helpful even if one does not choose to order CBRU's. Thus, based on these selections and other variables, a custom-designed unit is generated by the computer to meet the specific needs of a group and individuals within the group.

Numerous units are available for grades K-12 in the area of Environmental Education and for Exceptional Children. The units in the Environmental Education manual include such topics as Population, Land Use, and Pinelands. For Exceptional Children, units include Going to and from School, Nutrition, The Solar System, American Civil Rights, as well as numerous others.

SAMPLE OBJECTIVES:

Exceptional Children

110 My Home and Family (Grades K-3)

1. To demonstrate a positive self-concept.

14. To describe various family units.

Environmental Education

133 Population

1. To explain the significance of the population growth rate for society.

19. To identify the location of current and projected urban areas.

SPECIAL FEATURES:

The process by which units are available as well as the variety of objectives available in such narrow areas are completely unique to this model.

Dale Avenue Performance Objectives Manual and Teacher's Guide

Developer: Helen B. Hanson
Paterson Public Schools
Paterson, New Jersey

Source: Dale Avenue Project
c/o Office of Program Development
N. J. Dept. of Education
225 West State Street
Trenton, New Jersey 08625

Cost:
Dale Avenue Performance Objectives Manual and Teacher's Guide - $8.00
Manual on Special Area Performance Objectives - $2.50
Learning Activities for the Dale Avenue Performance Objectives - $15.00
Test Manual to Accompany the Performance Objectives - $3.50
Record Book for Recording Individual Student Progress - $1.50
Administrator's Guide - $3.50

Copyright: 1973

CONTENT AND ORGANIZATION:

The Dale Avenue Project is a Performance Objectives Curriculum for pre-kindergarten through third grade and is based, in part, on Piaget's theory of the 3-stage sequence of learning--the sensory motor stage, the perceptual stage, and ideational and representational stage.

The following are the areas covered by this model:

Listening
Naming
Observing
Speaking
Mathematics
Writing and Motor Skills
Perceptual Motor Skills
Decoding/Encoding
Classification
Seriation

The performance objectives in each of these ten areas begin with the most elementary skill a child must exhibit in order to enter pre-kindergarten and progress to complex skills that are consistent with the developmental capabilities of third graders.

The objectives may be used for pretests and posttests; and because of the hierarchical arrangement of the objectives, a child may progress from skill to skill at his own rate.

The teacher's guide contains information on each of the ten categories. Directions are given on pre- and post-testing, record keeping, grouping and individualizing, and materials necessary for lesson planning and teaching.

The objectives are contained in a sturdy, wire-bound manual, and a thumb index facilitates finding the categories in the manual. Each page of the bank is numbered, and each objective is coded to the Record Book.

SAMPLE OBJECTIVE:

Observing: 0-1 Selects his own belongings from those of others.

SPECIAL FEATURES:

A record keeping book, tests, an administrator's guide, and an activities kit which contains learning activities designed to achieve specific objectives are available.

Individualized Mathematics Learning in the Elementary School

An Ordered List of Mathematics Objectives K-8

Developer: Department of Public Instruction
Madison, Wisconsin

Source: Wisconsin FACT School Mathematics Committee

Cost: Contact source for costs on specific materials desired.

Copyright: No

CONTENT AND ORGANIZATION:

The material in this manual includes an ordered list of 115 mathematical content objectives for grades K-8, and identifying code of 23 strands (each strand representing a subdivision of math such as sets and geometry), a grid representing the level of difficulty of each objective, a glossary of appropriate verbs, and guidelines for implementing an individualized math program in the classroom.

The objectives are arranged in order from the simple to the complex. Each objective is coded so that its level of complexity and the strand to which it belongs may be determined.

Also available are multiple-choice test items which correspond to the objectives. These items are coded for cross reference and are organized into two levels, primary and intermediate.

SAMPLE OBJECTIVES:

The student should be able to

IQ. Identify closed and open simple curves.

115Y. a. Write a set of ordered pairs for a linear function.
b. Describe a linear function by drawing its graph.

SPECIAL FEATURES:

Anyone endeavoring to initiate an individualized math program based on objectives would find this model helpful and complete.

"Individually Prescribed Instruction: Reading Objectives"

Working Paper #30

Developer: Learning Research and Development Center: University of Pittsburgh, and Research for Better Schools, Inc.
1700 Market Street
Philadelphia, Pa. 19103

Source: Research for Better Schools

Cost: Contact source: (215) 561-4100

Copyright: Yes, 1969

CONTENT AND ORGANIZATION:

IPI's 3000 reading objectives form a comprehensive learning continuum divided into four stages: pre-reading, decoding, transition and reading skills. Working Paper #30 contains instructional objectives in both the IPI Reading Program as well as sample items used to teach and evaluate objectives. Objectives are organized under headings (A-K) using the following headings:

visual discrimination
auditory discrimination
literal comprehension
interpretive comprehension
evaluative comprehension
library skills
related reading
vocabulary development
reference skills
structural analysis, and
organizational skills

SAMPLE OBJECTIVES:

Auditory Discrimination

Skill:	Example:
Name the words which rhyme in a Mother Goose rhyme read by the teacher.	Listen and then tell me which two words rhyme. Jack and Jill. Went up the hill.

Literal Comprehension

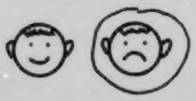
Skill:
Answer orally, recall questions following an oral reading presentation by the teacher.

Example:
After listening to Pony Tales About Queenie, answer orally recall questions: "How did Dr. Noble first get Queenie?"

Interpretive Comprehension

Listen to a selection read by the teacher and explain orally the reason for deciding whether the selection was happy, sad, or funny.

"Circle the picture that tells how the person in the sentence might feel."
"Ann is standing on Sam's hand."



Library Skills

Point to author and title of a book when asked to do so by the teacher.

Point to the title on the cover and ask, "What is the name of a book called?" (title)

Structural Analysis

Skill:

Given words ending in ance, ence (ancy, ency), ic, al, dom, ty, ity, ure, ism, and th, choose the correct word for particular contexts.

Example:

Choose from the words given below, the one which will best complete the sentence.

comical	purify
purity	distance
distant	comic

1. Bob Hope, the COMIC, entertains U.S. troops overseas.
2. The large building is visible from a great DISTANCE.
3. The inspector assured us of the PURITY of the water.

Vocabulary Development

Use the Thesaurus to locate synonyms and antonyms for given words.	After reading a story with overworked words, use the Thesaurus to find three synonyms for these words. wonderful places interesting

SPECIAL FEATURES:

Objectives are in mimeographed form, conveniently arranged by level and category, and serve well as a basis for developing item banks.

Users will need to secure IPI reading materials and related commercial materials if the objectives bank is to be used in its entirety. Many objectives require that IPI and related commercial materials be secured since they are references in particular objectives.

IOX (Instructional Objectives Exchange) Measurable Objectives Collections

Source: Instructional Objectives Exchange
Box 24095
Los Angeles, California 90024

Cost: $8.00/Catalog
$25.00/Test Sets

Copyright: No

CONTENT AND ORGANIZATION:

IOX has designed over 50 collections of measurable objectives in varied subject and skill areas at grade levels K through 12. The objectives currently cover 13 major cognitive areas and 43 subareas. In addition, collections of affective objectives are available in such areas as attitudes toward school, self, and drug abuse.

Within each catalog covering a cognitive area, objectives are organized into skill areas. "Content general objectives" are followed by more specific objectives. One or more sample test items follow the specific objectives.

Affective objectives are organized somewhat differently, depending on the area being covered. In "Measures of Self-Concept," for example, objectives are grouped into Secondary, Intermediate, and Primary Levels and further into Direct Self Report, Inferential Self Report, and Observational Indicators in the first portion of the booklet. Measures of Direct Self Report, etc., are located in the second portion of the book.

SAMPLE OBJECTIVES:

LANGUAGE ARTS: COMPREHENSION SKILLS K-12

Content General Objective A
Given a pictorial (pre-readers) or written stimulus, the student will be able to locate specified details and/or answer questions based upon the stimulus.

Objective A-1
Given pictures, shapes, or diagrams, the student will be able to select the one which conforms to a verb description or matches in detail to a specific picture, shape, or diagram.

MEASURES OF SELF CONCEPT K-12

Intermediate Level
Observational Indicator
Objective No. 20 - When given the opportunity to display classwork, students will give evidence of positive self concepts by volitionally posting their work.

SPECIAL FEATURES:

Few banks have as comprehensive a coverage as this one does in both cognitive and affective areas.

Comprehensive objective-based tests are also available on preprinted spirit masters. Each boxed set contains approximately 40 tests. Tests may be easily scored by hand or by electronic machines.

I.P.P.E.S. Master Objectives Bank

Source: Jackson Public School
290 West Michigan Avenue
Jackson, Michigan 49201

Cost: Contact source for quotes on program sets desired.

Copyright: No

CONTENT AND ORGANIZATION:

Five catalogs of objectives for Grades K-6 have been developed in the following areas:

Reading
Writing Skills and Written Expression
Social Studies
Mathematics
Science

Each objective in the I.P.P.E.S. Bank is coded with a ten-digit numeral. The first two digits indicate the subject matter area; the grade level is coded into the third and fourth digits; the fifth, sixth, and seventh digits indicate the topic of the instructional unit (such as outlines or parts of speech in the writing subject matter area); the last three digits indicate the objective within the topic. The objectives are listed by grade level under each appropriate topic.

SAMPLE OBJECTIVES:

0401010 Alphabet
  0401010001 Copy own first name without using model.

0304165 New Zealand
  0304165002 Locate New Zealand on the globe and flat map.

I.P.I. Mathematics "Continuum"

Developer: Learning Research and Development Center of the University of Pittsburgh, and Research for Better Schools, Inc., Philadelphia, Pennsylvania 19103

Source: Appleton-Century-Crofts, New York

Cost: Contact source (215) 561-4100

Copyright: Yes, 1972

CONTENT AND ORGANIZATION:

Objectives are broken down into seven levels (A-G) with approximately 52 objectives per level divided into the following categories:

numeration/place value
addition/subtraction
fractions
money
time
systems measurement
geometry
multiplication
division
fractions

The 364 objectives represent an unbroken continuum of sequenced learning objectives for grades 1-6 but with applicability for instruction up through the secondary grades.

Objectives are designed for use within the IPI instructional format, but clearly have utility if employed either as an instructional outline, or for test construction purposes in other settings.

SAMPLE OBJECTIVES:

(One Objective has been included from each heading.)

Level A numeration/place value

1. Given pictures of objects, the student identifies the smallest object, the largest object, and objects of the same size. Given pictures of two sets of objects, the student identifies which set has more, which has less, or if the sets have the same number of elements.

Level B

addition

2. Given pictures of two sets, the student illustrates the union of the sets and writes the number sentence. Given directions to take away a specified number of objects and a picture of a set of objects, the student illustrates the removal of a subset and writes the number sentence. LIMIT: one-digit addends

Level C

multiplication

1. Given a number line with only 0 and a one-unit interval indicated the student begins at 0, illustrates intervals and writes the multiples of 2, 3, 4, or 5 in order on the number line. LIMIT: nine multiples of the given number beyond 0

money

1. Given a picture of a U.S. dollar bill, the student states how many coins of a specified denomination (penny, nickel, dime, quarter, and half-dollar) are equivalent in value to it. Given a picture of a five-dollar bill or a ten-dollar bill, the student states how many one-dollar bills are equivalent in value to it.

Level D

systems of measurement

Given a ruler, the student measures a line segment and draws a line segment of a specified length. LIMIT: lengths of 10 inches smallest unit of measure one-quarter inch

Level E

time

Given two completed clock faces on which the time shown differs by 60 minutes or less, the student writes the number of minutes elapsed between the two given times. LIMIT: time shown on the second clock face is later than the time shown on the first clock face

Level F division

Given a division example with a one or two digit divisor, the student solves using the standard algorithm and expresses the quotient as a mixed numeral (whole number and common fraction) or a whole number. LIMIT: five-digit dividend; whole-number divisor and dividend; divisor dividend.

Level G geometry

Given representations of polygons and one of the terms quadrilateral, trapezoid, parallelogram, or rhombus, the student identifies all the polygons that are named by the given term. LIMIT: four polygons per set

applications

Given an example requiring multiplication or division of denominate numbers, the student solves, expresses the answer in simplest form, and labels the answer. LIMIT: given measures are in simplest form; two units of measure per division problem, divisors 10; 100 of any unit; units--hours, minutes, seconds, gallons, quarts, pints, yards, feet, inches

SPECIAL FEATURES:

The sequenced objectives have also been organized in such a way that they can be effectively used in individualizing instruction in math with adults. Please see the RBS publication entitled "Individualizing Learning for Adults-Mathematics," Publication #PP 550.

Objectives and Items Co-op

Developer: Dr. Marcus Lieberman

Source: William P. Gorth, Ph.D.
Center for Educational Research and Evaluation
University of Massachusetts
Amherst, Massachusetts 01002
(413) 545-1537

Cost: Contact source for content area objectives desired.

Copyright: No

CONTENT AND ORGANIZATION:

The purpose of this objective-item bank is twofold:

1. To put at the disposal of teachers a comprehensive fund of behavioral objectives to assist them in designing individualized learning programs for their students.
2. To serve teachers with a large supply of quality multiple choice test items intended to measure how far objectives have been met by their students.

The bank is organized into four levels: primary, intermediate, junior high, and senior high school; and into four subject areas: Language Arts, Math, Social Studies, and Science. Each manual contains objectives on a given grade level and in a given subject matter area. After each objective is stated within an individual manual, numerous test items are given to measure the achievement of that objective. All test items are coded.

SAMPLE OBJECTIVES:

Math (Grades K to 3)
Students will circle a given numeral from 0 to 15, when given orally, from a series of numerals.
Language Arts (Grades 7 to 8)
The student will show understanding of paragraph development by placing in order the scrambled sentences of a given paragraph.

SPECIAL FEATURES:

The numerous test items in addition to the comprehensive list of cognitive objectives blend to make this a complete bank.

Performance Objectives for Customized Test Construction Reading and Mathematics Objectives

Source: CTB/McGraw-Hill
Del Monte Research Park
Monterey, California 93940

Cost: Contact source.

Copyright: Yes

CONTENT AND ORGANIZATION:

This manual contains numerous reading and math performance objectives for grades K-12. These two main content areas are subdivided and objectives are listed under each of these sub-divisions. Following each objective is a code which indicates the subject under which the objective is listed, the grade level, and the number of test items available for computer-assisted retrieval of the items which are available from CTB/McGraw-Hill.

SAMPLE OBJECTIVES:

Reading
- I. Recognition of Sound and Symbols
  - A. Matching Sounds
    - 2. The student will match oral words with rhyming printed words. (R0101-002)

Math
- I. Preoperation Concepts
  - A. Number Systems
    - 3. The student will be able to rename a fraction expressed in lowest terms in higher terms. (M0101-002) Q-S; R-s; 3P-Q; N-O

SPECIAL FEATURES:

McGraw-Hill also has available Prescriptive and Interim Reading Inventories for Grades 1.5 - 6 and Prescriptive and Interim Mathematics Inventories for Grades 4 - 8. They are both criterion-referenced tests for which lists of objectives are also available.

Performance Objectives for Learning 100

A Multi-Media Basic Education Communication Skills System

Source: Educational Developmental Laboratories
(Div. of McGraw-Hill Book Company)

Cost: Contact source.

Copyright: Yes

CONTENT AND ORGANIZATION:

The Learning 100 Program is organized into graded levels of instruction and is structured to allow each student to enter the program at his level of need.

The seven levels range from RA through FA--Readiness through the sixth level. Within each level, objectives are categorized under the headings Perceptual Accuracy and Visual Efficiency, Vocabulary, Word Study Skills, Comprehension Skills, Reading Fluency, Spelling, and Writing. Each objective statement describes what the student will be able to do in one specific skill area upon completion of the designated cycles of Learning 100.

The performance objectives listed in this program provide the basis for the development of one mastery test for the RA level, and three tests for each succeeding level. One test item may be constructed from each objective, and the percentage or number of correct responses required is stated.

SAMPLE OBJECTIVE:

Level AA
 Comprehension
  Main Idea
   Given a short story and three titles, the student will underline the title which best conveys the main idea of the story in at least 3 out of 4 examples. The material is to be composed of known words.

SPECIAL FEATURES:

The focus of this manual on communication skills sets this bank apart from others.

Program Objectives

Source: East Allen County Schools
1240 U. S. 30 East
New Haven, Indiana 46774
(219) 749-5143

Cost: Contact source.

Copyright: No

CONTENT AND ORGANIZATION:

Program objectives have been developed in all subject matter areas for grades K-12 with individual booklets for each elementary grade (K-6). Within each booklet, each subject matter area is divided into two sections--Scope and Sequence and Program Objectives.

Program Objectives for the junior and senior high levels are included in booklets covering the following broad content areas:

Language Arts (including Foreign Languages)
Mathematics
Social Studies
Science
Health
Physical Education
Driver Education

Within each of these broad areas, objectives have been written for each course of study. In these manuals which have been written basically for junior and senior high, a section has been devoted to the objectives in that subject area for each of the elementary grades also.

SAMPLE OBJECTIVES:

By the end of the year, the first grade student will demonstrate recognition of the characteristics of the seasons of the year.

By the end of the course in life science, the student will be able to describe the nature of living things.

Quality Education Program Study (QEPS)
(An ESEA Title III Project)

Developer: Pennsylvania Department of Education and Bucks County, Pennsylvania, Division of Curriculum and Instruction

Source: Office of County Superintendent
Bucks County Public Schools
Division of Curriculum and Instruction

Cost: Contact source.

Copyright: No

CONTENT AND ORGANIZATION:

The material contained in the 20 paperback QEPS booklets is an effort to define and clarify the Ten Goals of Quality Education adopted by the Pennsylvania State Board of Education in 1965. There are three project reports as follows:

A - Project Description
B - General Needs Assessment
C - Characteristics of Incidents and their Reporters

For each of the Ten Goals, two booklets have been written. The first is a Description of the goals and contains the following components:

1. The categories of student behavior.
2. Rationales of effective student behavior.
3. Related teacher strategies.

The second booklet is related to Needs Assessment of the goal and contains:

1. Instructions.
2. General needs assessment instruments.
3. An analysis of instruments related to that goal.

Thus, there are two booklets for each of the Ten Goals. The areas covered by each of the goals are as follows:

Goal One - Self-understanding
Goal Two - Understanding Others
Goal Three - Basic Skills
Goal Four - Interest in School and Learning
Goal Five - Good Citizenship
Goal Six - Good Health Habits
Goal Seven - Creativity
Goal Eight - Vocational Development
Goal Nine - Understanding Human Accomplishment
Goal Ten - Preparing for World Change

Under each goal are listed "areas of effective behavior: and "areas of ineffective behavior." Each of these two areas is further categorized into more specific indicators of student behavior.

SAMPLE OBJECTIVES:

Goal Nine: Quality education should help every child to understand and appreciate as much as he can of human achievement in the natural sciences, social sciences, humanities, and the arts.

Effective Behavior

1. Student admired the achievements, work efforts, or personal attributes of an individual or group.

    1.1 Student voiced appreciation for an individual based on his personal attributes or on action or activity that reflected favorable personal attributes.

        1.1-1 Student voiced appreciation for a person or group who helped others.

Ineffective Behavior

1. Student failed to admire or ridiculed the worthy achievements, work efforts, or personal attributes of an individual or group; or he admired inappropriate or unworthy endeavors.

    1.5 Student demonstrated lack of respect for a worthy, well-known person.

        1.5-2 Student defaced or destroyed a picture of a leader of another race.

SPECIAL FEATURES:

This is an intricate and well conceived program. Use of "effective and ineffective behavior indicators" is unique. Its coverage of both cognitive and affective learnings is also a unique feature of this model.

SCORE

Source: Westinghouse Learning Corporation
P. O. Box 30
Iowa City, Iowa 52240

Cost: Varies greatly according to program selected and quantity of materials required. Contact source for details.

Copyright: Yes

CONTENT AND ORGANIZATION:

Score is a criterion-referenced testing system which combines a set of bahaviorally-stated objectives with a computer-retrievable bank of over 20,000 related test items. The sets of objectives are organized in catalogs containing 8,000 performance objectives. These K-9 objectives relate to four subject areas, Language Arts/ Reading, Mathematics, Science, and Social Studies. The objectives for each area have been organized into three levels--Primary (K-3), Upper Elementary (4-6), and Junior High (7-9). Each level and curriculum area is in a separate catalog.

The first section of each catalog is a listing of goal statements. This section serves as a guide in selecting appropriate performance objectives within the catalog.

Under each goal in the second section are listed a number of intermediate objectives. Under each intermediate objective are numerous performance objectives. Following each performance objective are a series of letters within parentheses. These codes indicate the test item format choices (multiple choice, written response, and individually administered) that are also available through the Westinghouse Learning Corporation.

The Score System custom develops appropriate test booklets to measure the achievement of performance objectives and also has a scoring and data reporting system.

SAMPLE OBJECTIVES:

Goal: The student will demonstrate the ability to comprehend speech.

Intermediate Objective: The student will demonstrate the ability to receive, remember, and evaluate ideas and details presented orally.

Performance Objective: The student will select from a list of alternatives the probable audience intended for a given, short, oral communication.

SPECIAL FEATURES:

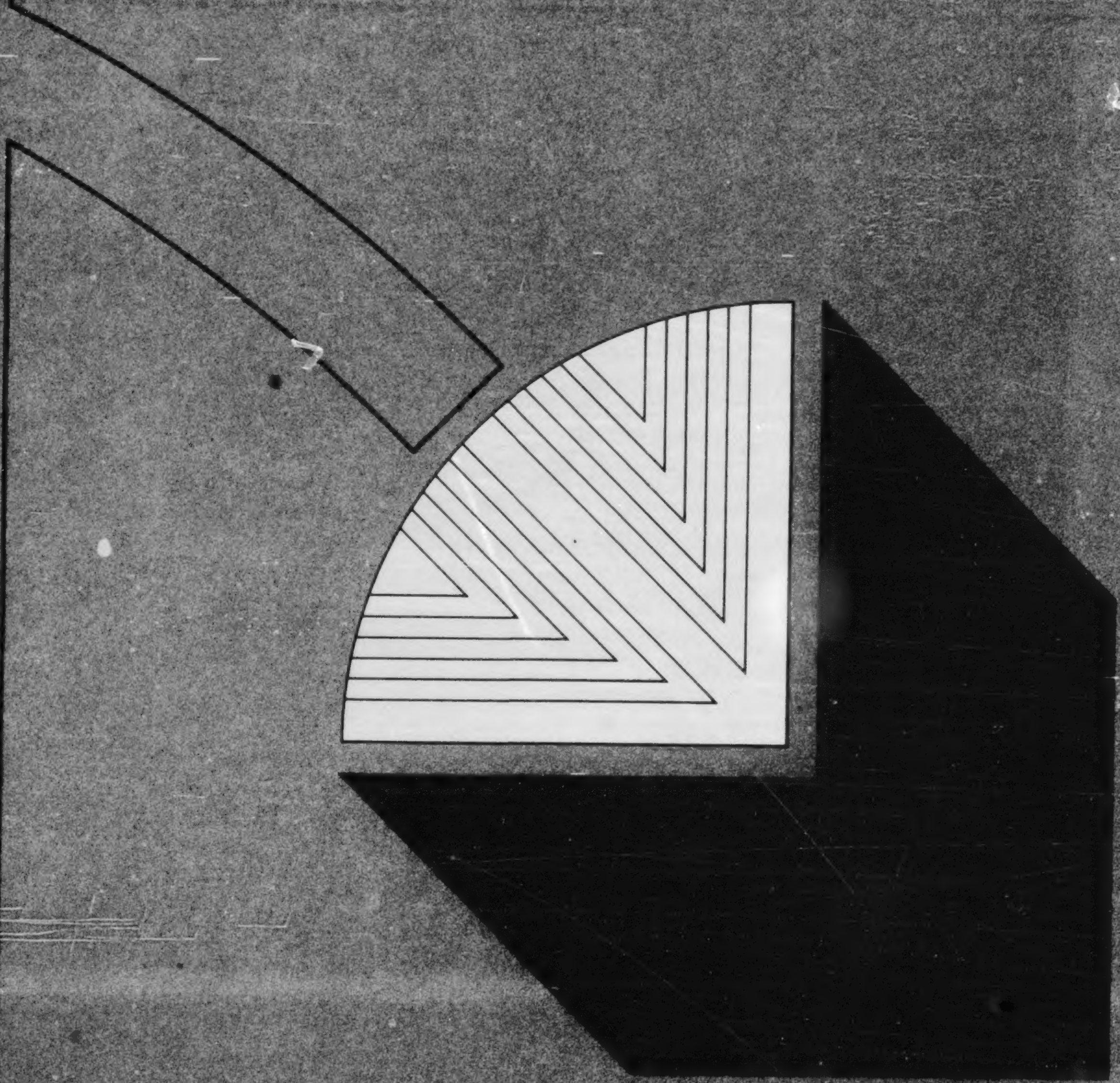
The objectives catalogs may be purchased and used independently of the test items program. Although no mention is made of pretesting procedures, the post test program is very comprehensive.

Districts wishing to contract with Westinghouse for assessment services may submit up to 20% of their own objectives if they are not found in the Score objectives catalogs, and Score test booklets are custom printed for a district's chosen objectives. The test result reports provide information to aid teachers in helping students and to help administrators gauge overall program effectiveness.

component 3

assessment models

measurement referenced to predetermined objectives



The APELL System

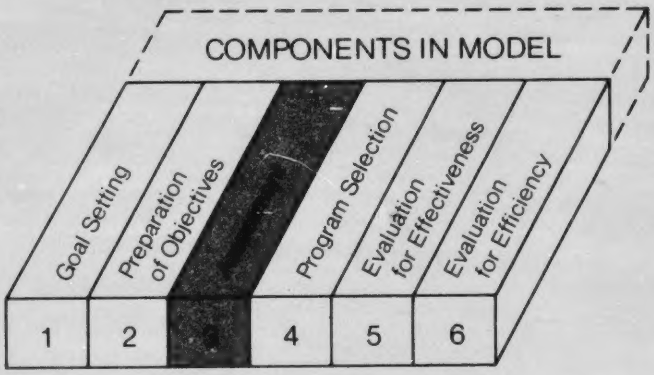
Assessment Program of Early Learning Levels

Developer:
Edcodyne Corporation

Source:
Edcodyne Corporation
One City Boulevard, West
Suite 935
Orange, California 92668

Cost:
Contact source. Costs averaged over three years approximately $1.00 per student.

Copyright:
Yes, 1972


COMPONENTS IN MODEL
Goal Setting
Preparation of Objectives
Program Selection
Evaluation for Effectiveness
Evaluation for Efficiency
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OVERVIEW:

The APELL System (Assessment Program of Early Learning Levels) is an instructional management system for use at the pre-school, kindergarten, and first grade levels. It diagnoses skill levels based on specific measurable performance objectives and suggests instructional activities and materials for the child's individual needs. Thus, the students can be assessed in pre-reading, pre-math, and language skills.

PROCEDURES:

The APELL System provides a predetermined set of objectives and skills. The teacher merely tests the students with prepared tests and sends out the response sheets for scoring. Within ten days the teacher has the results which can be correlated with activities and materials. A pre-test can also be administered and scored to monitor overall progress. In this manner, the program becomes an assessment system as well as a diagnostic/prescriptive instructional aid.

IMPLEMENTATION NEEDS:

The implementation needs consist of accepting the APELL objectives, determining a testing plan and securing materials. The system would also have to be meshed with any overall assessment plan.

SPECIAL FEATURES:

The diagnostic/prescriptive nature of the system is a unique feature.

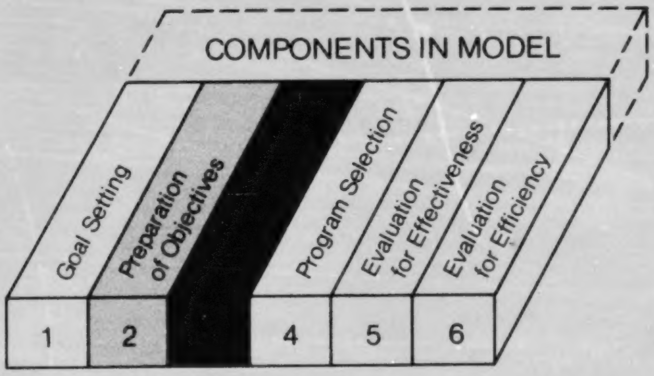
CAM (Comprehensive Achievement Monitoring)

Developer:
William Gorth, University
of Massachusetts

Source:
Evaluation Center
Hopkins Schools
Hopkins, Minnesota 55343

Cost:
Contact source.

Copyright:
Yes, 1970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OVERVIEW:

CAM is a "formative" design procedure for monitoring student movement continuously while a program is in operation. CAM provides information for improved decision making. The model includes the following components:

(1) A curriculum defined using behavioral objectives which are systematically coded for easy identification, retrieval and grouping, and which are further classified by one or more taxonomies;
(2) Test items or other behavioral indicators designed to measure student performance on each objective specified for the system;
(3) A set of randomly parallel tests, organized so that each test evaluates all, or a sample of all, the objectives in the curriculum;
(4) Periodic testing, usually weekly or bi-weekly throughout the period of instruction.
(5) Computerized analysis and reportings of results within a few days of each testing;
(6) Interpretation of results by teachers and students as a basis for decisions relating to curricula and instruction;
(7) Modification of curricula, instructional activities and the CAM design based on the results extending over the course.

PROCEDURES:

The CAM procedure has nine major procedural steps which are as follows:

(1) Determine the number and length of CAM systems;
(2) Develop a topical outline;
(3) Develop objectives;
(4) Design the test forms;
(5) Develop test items;
(6) Construction of test forms;
(7) Formation of test schedule groups;
(8) Preparation for data analysis;
(9) Revise or recycle.

IMPLEMENTATION:

The developers discuss several implementation needs in addition to the CAM program components. An in-service program for teachers of from three to five days is recommended before starting CAM. Obviously, trained personnel or consultants will have to conduct the in-service program. Also the CAM program requires that the entire program be operational before school starts. In addition, a large scale adoption necessitates securing computer support services to help manage the program.

SPECIAL FEATURES:

The CAM program also provides an objective and test item bank to support the program. A wide range of grade levels and content areas are available but a current list would be needed to find appropriate areas. Several orientation materials (slide-tapes, user manuals) are also available.

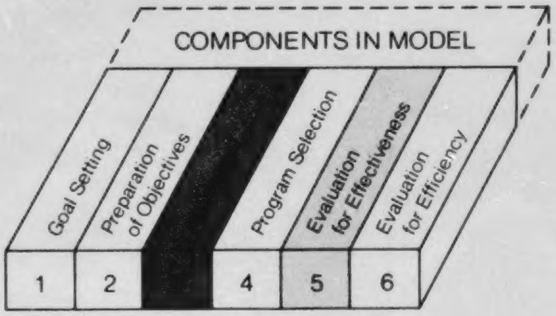
Criterion Referenced and Objectives Referenced Measurement (CRORM)

Developer:
Educational Testing Service

Source:
Programs of Continuing Education, and Information Systems
Educational Testing Service
Princeton, New Jersey
(609) 921-9000

Cost:
Contact Source

Copyright:
Yes 1972 E.T.S.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OVERVIEW:

The purpose of this model is to support an intensive training course in the area of Criterion Referenced and Objectives Referenced measurement.

The model has a definite test oriented emphasis in content and references. Much of the content of the model is in the form of notes and papers delivered by evaluation specialists. The material ranges from outline style schema to formal research journal treatments of the various topics in the model.

The overview of criterion referenced tests, which defines and refines the concept with numerous extensions of reference systems such as, behavior referenced, domain referenced, norm referenced, standard referenced, etc., is very helpful in developing a clearer understanding of the difference between descriptive and evaluative data in the evaluation process.

A considerable portion of the model is highly technical material in terms of test item construction and statistical analysis of test results. In this instance, the model is expository and prescriptive.

The additive nature of the model results in the endorsement and explanation of the CRORM system which is summarized in the following ten step program model:

1. Establish objectives
2. Define reports
3. Define coding schemes
4. Begin item writing
5. Develop bank structures
6. Design Processing System
7. Build the "Automated Parts"
8. Develop Users Guide
9. Systems Documentation
10. User Seminars

IMPLEMENTATION NEEDS:

The intensive training experience is a necessary part of this model since the publication merely supports the experience. Participants selected for the training experience should be knowledgeable in the evaluation of educational programs.

SPECIAL FEATURES:

Extensive bibliographic material is provided on all phases of the model.

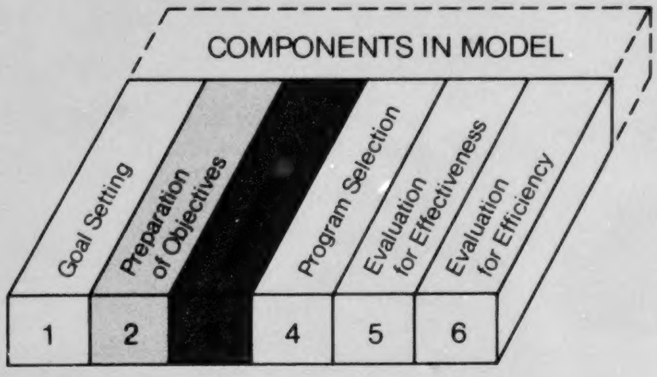
Criterion Referenced Testing Programs

Developer:
Unknown

Source:
Educational Testing
Service, Princeton, N.J.
C/O Matthew Sherman
(609) 921-9000

Cost:
Varying estimates available from source.
Prospectus available.

Copyright:
1974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OVERVIEW:

Educational Testing Services (ETS) provides an array of services to help districts develop the kinds of specific criterion referenced test programs they need. The program allows a community to focus on objectives that are uniquely its own.

PROCEDURES:

ETS breaks the process of test program development (assessment) into seven steps:
(1) Defining objectives;
(2) Writing test items;
(3) Assembling items into tests;
(4) Analyses;
(5) Interpretation of test results;
(6) Reporting test results; and
(7) Conducting further studies.

At each step of the development ETS offers services that range from principal developer to reviewer and critic of work performed by the local school district. The degree of involvement by ETS is divided into three levels: (A) local school district is principally responsible for the work; ETS reviews it; (B) ETS trains the local school district staff to perform the activity and (C) ETS is principally responsible for the activity under the local school district's guidance.

IMPLEMENTATION NEEDS:

The local implementation needs will vary, and local conditions will dictate potential ETS involvement. Cost estimates can be provided only after discussions with district representatives and on the basis of agreed-upon specifications. However, ETS will provide budget estimates that may be useful to local districts in determining implementation involvement.

SPECIAL FEATURES:

The unique flexible feature is the breakdown of the program into sections and the three degrees of involvement by ETS at any section of the program selected. It is also a service that districts contract for and not a "turnkey" or product-oriented program. The ETS CRORM and CIRCUS testing program can also be built into the program.

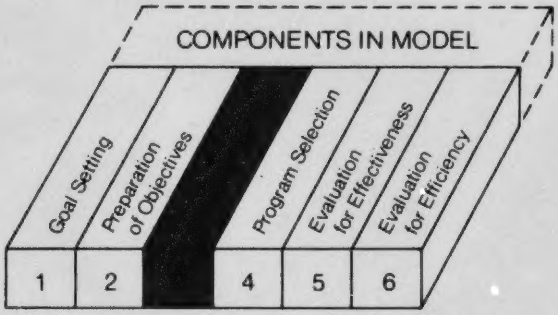
Developing a Large Scale Assessment Program

Developer:
Frank E. Womer
University of Michigan

Source:
Cooperative Accountability
Project, Colorado
Department of Education
1362 Lincoln Street
Denver, Colorado 80203

Cost:
Contact Source

Copyright:
No (1973)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OVERVIEW:

The purpose of assessment according to the Cooperative Accountability Project (CAP) is to improve educational decision-making by securing information about the outcomes of education. The publication was written to delineate the role of assessment as an important aspect of a comprehensive accountability system for the nation's elementary and secondary schools.

PROCEDURES:

The document presents discussions, principles, and options for a comprehensive assessment plan. The major steps are:

(1) Determining administrative structure
(2) Types of assessment outcomes
(3) Types of test or survey instruments
(4) Reporting categories
(5) Population
(6) Whether sampling is to be used
(7) Data collection methodology
(8) Data analysis strategy
(9) General reporting policies
(10) Costs and alternatives
(11) Time schedule
(12) Checkpoints for a quality assessment program

IMPLEMENTATION NEEDS:

The publication does not go into detail concerning implementation needs, but does discuss the considerations required to determine the implementation needs. Most of the description alludes to state-wide and national examples so some translation to local school district needs would be necessary. The description does indicate that for most assessment programs a full time administrator would be necessary, or that outside services would need to be secured.

SPECIAL FEATURES:

One section of the document provides descriptions and procedures utilized in various state assessment programs which may be helpful.

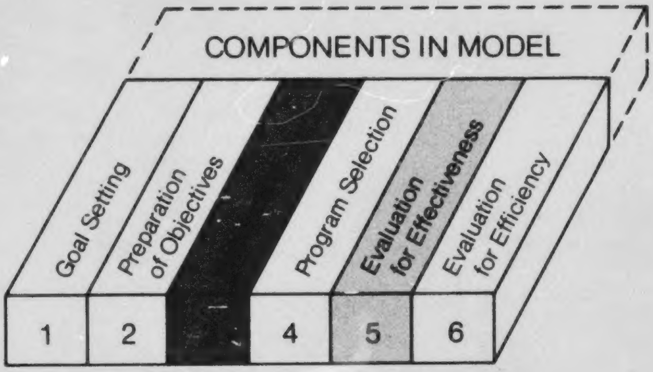
Discrepancy Evaluation

Developer:
Malcolm Provus

Source:
Croft Leadership Action
Folio #44
100 Garfield Avenue
New London, Conn. 06320

Cost:
by Subscription

Copyright:
1972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OVERVIEW:

The model defines and explains discrepancy evaluation, and illustrates how teachers and administrators may incorporate discrepancy evaluation techniques to improve the impact of evaluation on program improvement.

The model consist of three parts: (1) overview, (2) teacher use, and (3) administration. Each is color coded for easy identification and separate consideration when desirable.

In Part I, Discrepancy Evaluation is defined as the difference between standards, and measured performance against a chosen standard. Five stages are cited in an evolving discrepancy evaluation model which will reveal discrepancies: (1) program design vs. design criteria, (2) program operation vs. program design, (3) program interim products vs. program design, (4) program terminal products vs. output dimensions, and (5) program cost vs. cost of other programs.

Part II is an illustration of how teachers may use discrepancy evaluation techniques to improve instruction. Sample instruments provided reveal discrepancies between teacher and student perceptions of the classroom process in this section.

Part III illustrates how administrators can use a discrepancy evaluation model with a suggested format and treatment of information. In order to utilize the model, the administrator must be able to identify performance objectives in the program, describe inputs prior to the program, and describe the process through which objectives are reached. With knowledge and processing of the above information, the administrator can complete the discrepancy evaluation model.

IMPLEMENTATION NEEDS:

This model may be used as a whole or introduced as separate pieces where appropriate. All forms (with glossary) are included in the packet. The model can be adapted or adopted to local conditions with relative ease.

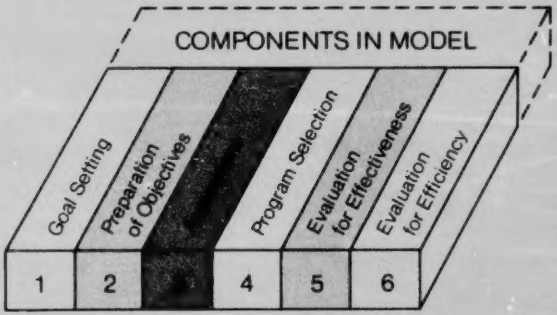
Domain-Referenced Testing

Developer:
Wells Hively (Editor)

Source:
Educational Technology
Publications
Englewood Cliffs, N.J. 07632

Cost:
$4.95 (paperback)

Copyright:
1974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OVERVIEW:

With this publication curriculum planners have a valuable new tool in preparing instructional objectives which allow for the more precise diagnosis of learner needs as well as improved objectives on which to prepare test items. The force or general purpose of "domain" preparation is to influence the writer in the direction of more significant and generalizable skills. The anticipated results of designing instructional objectives from within content domains is not only to provide clear guidance for what is a suitable stimulus for presentation during teaching and testing, but also to provide a basis upon which the teacher/evaluator can assess student performance on content sampled from within a given domain as homogeneous across similar subject matter areas, e.g., students should not have any more difficulty in dealing with totalitarianism as a "domain" in 17th century France, as for 20th century Spain or 10th century China, etc.

PROCEDURES:

The construction of domains requires the specialization of steps beyond that of simple instructional or criterion-referenced objectives aimed at a single concept mastery. The elements of domain specification include: 1) domain (general idea) description, 2) setting content limits, 3) determining criteria or distractor domains, (4) preparing format, (5) writing directions and (6) constructing sample items.

"Domain descriptions" are general but operational statements of the behavior and content upon which instruction or testing is to be focused. "Content limits" are the rules or listing of content eligible for inclusion in the test items or in instruction. For example,

CONTENT LIMITS

I. Sentences in the structural patterns:

Noun$_1$-verb-noun$_2$	Ex.: I like you.
Noun$_1$-linking verb-noun$_1$	Ex.: Mary is a doctor.
Noun-linking verb-adjective	Ex.: John has been unhappy.
Noun-verb	Ex.: The crowd roared.

II. Any tense or number may be used.

III. Patterns may be modified by single or series of adjectives or adverbs.

The "Criteria for constructed responses" are those rules by which the adequacy of response to items can be judged. The construction of "distractor domains" specifies the rules for the inclusion of wrong-answer alternatives. "Format" preparation is simply the description of the form in which the items will be presented to students, and "directions" are, as might be anticipated, the preparation of facsimiles for the appearance of the actual test itself.

IMPLEMENTATION:

The implementation of a DRT system requires administrative judgments on domains for development, staff training in both the construction of domains, and the preparation of items responsive to the domains.

SPECIAL FEATURES:

Domain-reference instruction and testing represent a significant curriculum development in that instructional objectives become more sensitive to the larger gestalt or construct of the elementary in a particular learning activity.

The model is divided into three parts with contributions from many authorities. The parts are "Basic Ideas," "Applications and Innovations," and "Perspectives." Contributors include: Eva Baker, Jason Millman, Anthony Nitko, Donald Miller, and others.

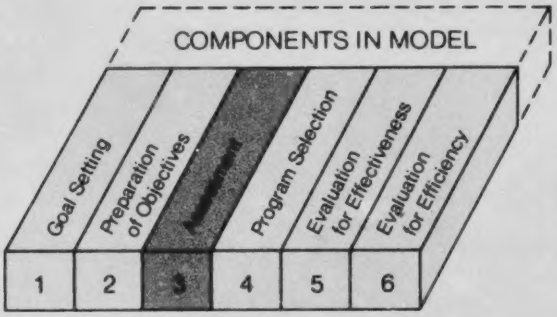
Educational System Model for Planning and Accountability

Developers:
Robert D. North and
Harold F. Bligh

Source:
Harcourt Brace Jovanovich,
Incorporated and
The Psychological Corp.
757 Third Avenue
New York, N.Y. 10017
(212) 754-3161 or 3530

Cost:
Listed in catalogs of HBJ and The Psychological Corporation; available through telephone or mail request.

Copyright:
Printed materials by HBJ or The Psychological Corporation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OVERVIEW:

Through an experienced staff and a wide array of printed materials, this model covers all six components. Consulting services of educational and psychological specialists are offered under flexible arrangements for conferences on planning, implementation, and appraisal as well as process assessment. Published materials provide structure for aptitude and achievement measurement, diagnosis, pupil grouping for instruction, individualized instruction, skills monitoring, and counseling.

The principal features of the model for the six components are:

1. Goal Setting. Staff members or consultants on the service team meet with school and community representatives to identify and discuss major goals of learning for the enrolled pupils. Organizational decision-making strategies can be introduced and developed at this point if desired, and questionnaires or checklists can be devised and used as needed. Assistance is given in ranking the goals to establish priorities and in setting schedules for implementation and assessment of accomplishments.

2. Converting Goals to Objectives. To enable progress toward accomplishment of goals to be assessed, psychologists and curriculum specialists on the service

team work with school staff members in formulating the goals into sets of specific performance objectives. Each objective is stated in terms of observable or measurable pupil behavior, and a criterion is set for judging attainment of each. Members of the model's service team have recently worked with various state and local school agencies in making such goal-to-objective translations.

In the process of helping to delineate performance objectives, the service team encourages the school staff members to make full use of existing indexes and banks of objectives. An example of resource material of this nature is HBJ's Index of Instructional Objectives. These objectives, stated in performance terms, cover all major areas of the curriculum in the grade range of 1 through 9. The objectives are keyed to item groups in the Stanford Achievement Test. By using a resource such as this, staff and consulting time can be saved for developing those objectives that are related to special needs of the district's pupils or special goals that have been set for them.

3. Assessment. In this model, assessment is accomplished through group and individual testing with standardized tests, supplemented as necessary by locally constructed measures. Item performance analysis data obtainable in connection with the processing services for instruments such as the Stanford Achievement Test, the Metropolitan Achievement Tests, and the Iowa Silent Reading Test can give information about pupil performance that can be appraised in relation to local objectives and, if desired, in terms of national norms. An Objective-Referenced Interpretation guide for the Stanford Achievement Test offers useful information for administrators and teachers who want to gauge the performance levels of groups of pupils on items measuring specific instructional objectives. Further diagnostic and evaluative data can be obtained through the use of HBJ instruments such as the Stanford Diagnostic Reading and Arithmetic Tests and the new Skills Monitoring System. The latter is specifically designed to help the teacher to plan prescriptive action to meet diagnosed needs of pupils. The

system is designed to be self-contained within the classroom, but computer processing can also be provided.

The service team will work with school staff members in selecting or developing a method for determining growth rate expectancies for individuals or groups if desired, using background factors, aptitude measures, growth rate to date, or any other variables deemed appropriate. Analysis of discrepancies between "expected" and actual performance can be provided.

4. Program Selection. The team's extensive experience with a wide variety of special programs such as the More Effective Schools in New York City, the Model Demonstration System in Boston, the Vineland Career Education Program, and numerous Title I programs in the range of pre-kindergarten to Grade 12 in several large city school systems can be brought to bear on the development of special instructional programs and related supportive services to meet the assessed needs of New Jersey pupils. Educational consultants on the team have expertise in areas that are likely to be relevant to program planning and implementation assistance, such as school administration, curriculum, teacher training, school plant maintenance and expansion, facilities, and special equipment.

5. Evaluation for Effectiveness. The system offered for evaluating program effectiveness includes planning evaluation designs, conducting process appraisals during the formative stages and providing feedback for improving implementation, evaluating pupil progress in relation to the criteria, diagnosing learning needs, formulating recommendations for programs based on process and product appraisal findings, and preparing reports.

   Among the instruments and procedures that may be incorporated in the team's comprehensive program evaluations are: standardized measures such as the Metropolitan Readiness Test, the Metropolitan or Stanford Achievement Test, which have both norm-referenced and criterion-referenced features that may be used in making comparisons of pre-test and post-test results; specially developed questionnaires and checklists;

observations of instruction and learning activities; and interviews of school staff members, pupils, parents, and other community members.

Information and insights gained through the process evaluation--especially from classroom observations--is analyzed to detect strengths and weaknesses in program operations, such as in instructional effectiveness, teacher-pupil interaction, and pupil involvement in the learning process. Recommendations for recycling, modifying, or discontinuing a program are based on a thorough analysis of process and product findings obtained from all the instruments and procedures employed in the evaluation study.

6. Evaluating for Efficiency. As part of the management information services offered, this model includes provisions for evaluating the efficiency of use of financial, personnel, and material resources. These services extend from judgmental appraisals by seasoned school administrators and curriculum specialists on the service team to intensive program budget reviews and cost-benefit analyses. Costs and resource utilization are assayed in relation to the benefits pupil derive from programs designed for specific objectives and against the background of the district's commitments to a comprehensive educational program for all its enrolled pupils.

All the services and materials offered in this overall model are available as separate units or through contractual consolidations.

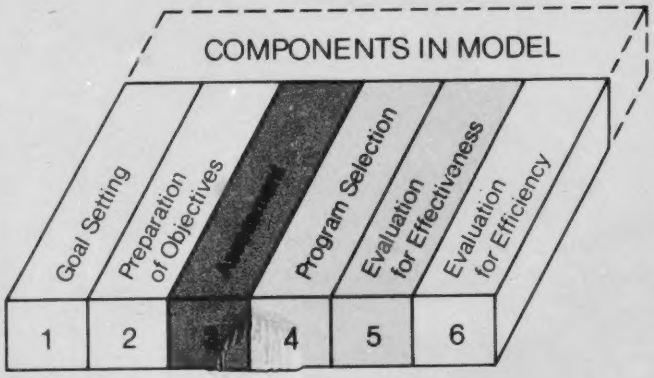
Guidebook for Project Development, Management and Evaluation

Developer:
Fleetwood, George (Ed.)

Source:
Division of Development
Department of Public
Instruction
Raleigh, North Carolina

Cost:
Contact Source

Copyright:
No (1974)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OVERVIEW:

The purpose of the guidebook is to provide the Title I or Title III project director with an understanding of the processes of project development, management and evaluation. These processes are to be used to improve day-to-day management decisions and maximize the potential for success. The guide includes sections on needs assessment, developing the project, and developing the evaluation.

PROCEDURES:

The guide assumes prior planning involvement, to produce goals and objectives, responsive to the local situations. The four steps listed as necessary in any needs assessment are:

(1) List major goals or objectives;
(2) Prioritize these goals or objectives on the basis of importance;
(3) Determine needs by identifying discrepancies between actual and intended, i.e., between status and standard;
(4) Prioritize needs on the basis of importance of the need, probability of making an improvement, approximate cost of making an improvement, and relative

time size of the need. The generation of needs allows for the categorizing and clustering of needs so that problem statements and delineations can be derived.

IMPLEMENTATION NEEDS:

The guidebook provides broad procedural steps to initiate a needs assessment but alludes to additional management processes that must be included in order to carry out the needs assessment. For example, a process for prioritizing goals and objectives, as well as for the identified needs, is lacking. Also, discrepancies between status and standard information is to be supplied from sources such as test data, non-test school context data, home/community context data, and school financial constraints. Thus, it appears that additional needs include a testing model and schedule, and an information retrieval system to identify discrepancies. The guidebook, while attempting to provide processes for day to day management decision making, still requires that local personnel develop the supplementary systems.

SPECIAL FEATURES:

The guidebook presents a broad overview for first level involvement in needs assessment. The orientation is such that the process can be meshed with other processes preceding or following it, however, in the overall planning process. Graphic portrayals are included to make this meshing more understandable.

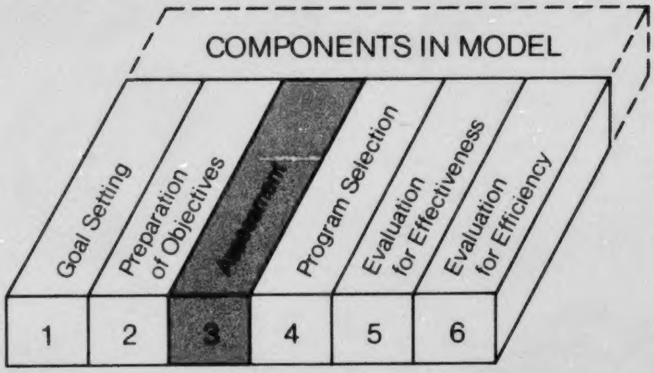
IOX Objectives - Based Test Collections

Developer:
Instructional Objectives Exchange

Source:
The Instructional
Objectives Exchange
Box 24095
Los Angeles, California
90024

Cost:
$8.00 per volume

Copyright:
1973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OVERVIEW:

To counter some of the deficiencies of conventional standardized tests for assessment purposes at the classroom level, IOX developed and distributes test instruments designed to measure explicitly stated instructional objectives. Each objective-based test is composed of items generated according to the stipulation included in what IOX calls a detailed educational goal statement --an amplified objective. These amplified objectives clearly specify what kinds of learner behaviors are included in the domain of test items measuring the objective.

IMPLEMENTATION NEEDS:

The IOX tests themselves are relatively easy to use and score, but they would have to be put into a larger scheme of operations to function as an assessment component. Test scoring is manual; no recommended or sample reporting formats are provided. A sampling process is suggested for district-wide usage but no detail is provided. The IOX tests could be a major component of a measurement system but procedural details and supplementary test items would have to be supplied from additional sources in order to test in all areas.

SPECIAL FEATURES:

The tests are supplied on pre-printed spirit masters to reduce user costs. Tests are provided in two forms to permit pre-and post testing. The tests provide either five or ten items per objectives.

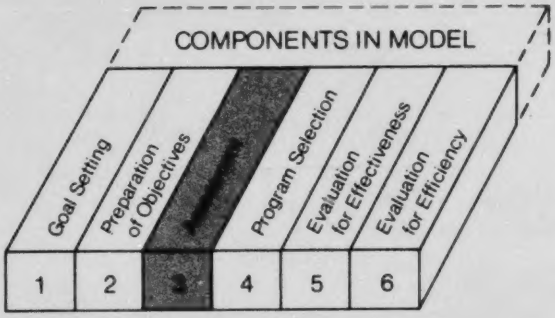
Individually Prescribed Instruction: Reading and Math

Developers:
University of Pittsburgh
and Research for Better
Schools

Source:
Research for Better
Schools
1700 Market Street
Suite 1700
Philadelphia, Penna. 19103
(215) 561-4100

Cost:
Consult with R.B.S. for
cost models depending on
local district needs.

Copyright:
Yes, Reading: RBS Inc.
Math, New Century Ed. Corp.
440 Park Avenue, So.
New York, New York 10016
(212) 689-5700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OVERVIEW:

IPI's reading and math programs (Grades 1-6, and with applicability for middle school as well) may be used as assessment procedures. IPI has a comprehensive set of instructional objectives along with test items for each objective. While the purpose behind the design of the IPI programs was not assessment per se, the comprehensive sequence of objectives, organized hierarchically over an unbroken continuum, allows the materials to serve effectively as an assessment model for individual student progress.

PROCEDURES:

Placement tests are used to place students in different programmed readers. An end-of-book test is then used to make a more definitive placement of the student. The student's progress is monitored by means of end of unit tests, oral tests, tapebook student responses, and final end-of-book tests. In the primary small group reading sessions, the teacher also has an opportunity to hear the student read and respond to evaluation questions to determine comprehension. In the Intermediate program the student is placed on the skills continuum by means of a placement test. Once the level and unit designation has been made, a pretest related to a specific unit is administered. The results on the pretest, which tests a number of skills in the unit, determine the specifics to be prescribed for the student. A curriculum embedded test(s) (CET) is found within each skill and is representative of the booklet's work pages. Based on an analysis of the CET(s) the student is either prescribed additional work, an alternate learning situation, or is administered a posttest. If he/she exhibits mastery of the skill, he/she moves to the next unit of work. "Mastery" is set at the student responding correctly to 85% of the objectives within a given instructional unit.

IMPLEMENTATION:

Both IPI reading and math programs require that: 1) space, materials and equipment be provided and made readily accessible; 2) that staff undergo R.B.S. directed in-service training; and 3) that the required body of instructional materials be purchased.

Both reading and math follow an implementation pattern similar to that which follows: 1) determine areas of student deficiencies through testing; 2) determine sequence of behavioral objectives to be taught within and between areas; 3) break down the particular behavioral objectives into basic units representing meaningful teaching units; 4) write clearly defined behavioral objectives such that their accomplishment can be established in empirical fashion; 5) select materials, develop methods and establish procedures leading to accomplishment of objectives, and 6) select and/or devise tests to place students in an individually prescribed instructional continuum.

SPECIAL FEATURES:

IPI's banks of objectives and matching test items allow the teacher to examine at desired intervals three levels of diagnostic and mastery testing. Properly employed, IPI means that each youngster is operating on his/her own success level. Additionally, IPI cross references enrichment materials to ensure that students have multiple resource materials to use according to their own needs and interests. Finally, the teacher is allowed to serve as specialist in diagnosing and prescribing learning tasks so that constant monitoring and mastery testing can be immediately fed back into instructional planning for each and every student.

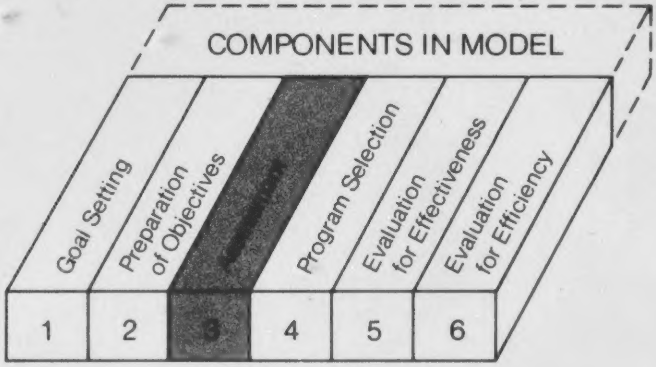
New Jersey Educational Assessment Program

Developer:
Office of Education
Assessment
c/o Gordon Archer

Source:
N.J. Department of
Education, Office of
Education Assessment
225 West State Street
Trenton, N.J. 08625
(609) 292-1532

Cost:
Contact Source:

Copyright:
No (1972)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OVERVIEW:

The New Jersey Educational Assessment Program is designed to provide information to educational decision-makers for the improvement of instructional programs. The Educational Assessment Programs goals which relate to State-level information needs are:

1) To assess the status of the New Jersey educational system relative to the Statewide goals as determined by the State Board of Education through the "Our Schools" Project.

2) To provide information useful in the planning and evaluation of educational programs designed to bring the New Jersey educational system closer to those statewide goals.

The goals which relate to the needs of both State-level and local-level personnel are:

To identify local school districts which, among others sharing similar circumstances, have conducted programs which have been most successful in achieving stated goals.

To identify local school districts in need of State Department of Education assistance.

To provide local school districts with information useful to their participation in the School Improvement Program.

The goals which relate to local-level information needs are:

To provide local school districts with information useful in making decisions about the allocation of resources and the design, implementation and evaluation of educational programs.

To provide local school districts with information useful in the assessment of student progress.

The long-range goals of the Educational Assessment Program are to assess the status of New Jersey's educational system relative to all of the state-wide goals which were determined by the "Our Schools" Project and adopted by the State Board of Education on April 12, 1972. The eleven "Outcome" goals pertain to individual student behaviors or attitudes desired as a result, at least in part, of formal educational experience. The nine "Process" goals describe how schools should function to provide meaningful education in New Jersey. The EAP will endeavor to provide information useful in the planning and evaluation of educational programs designed to bring the New Jersey educational system closer to these statewide goals.

PROCEDURES:

A description of the program evolution, rationale, and test development procedures are included. Test administration is handled by local school personnel at grades four, seven, ten, and, every third year at grade twelve. The test results are presented item by item by the percent of students answering correctly and make possible answers to the following questions:

1. How are the children progressing toward the local objectives and statewide goals?

2. How does the progress of the children in one local district compare to the progress of children in similar districts?
3. What can the local district do to improve its educational system?

IMPLEMENTATION NEEDS:

Local districts wishing to duplicate the statewide program would need to translate the procedures to local conditions and concerns. If alternate grade levels or goals were chosen local districts would need to utilize a process similar to that developed by the state. This might necessitate outside assistance in a test construction and scoring procedures.

SPECIAL FEATURES:

The New Jersey program utilizes achievement correlates that are referenced to regression formulas to facilitate comparison between similar districts, and to determine the relative contribution of these correlates to educational achievement.

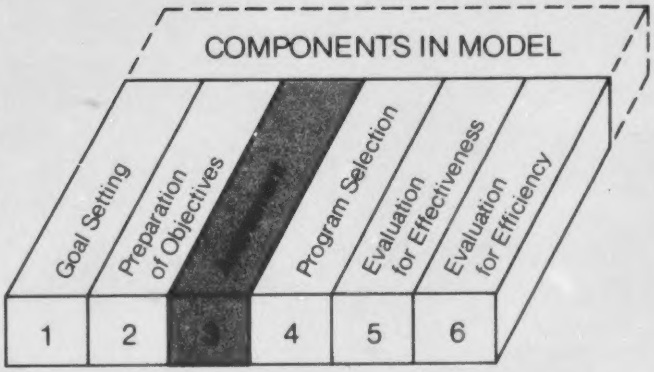
New Jersey Scales (And Assessment Process)

Developer:
New Jersey Puerto Rican
Congress, Inc.

Source:
Office of Program
Development
1000 Spruce Street
Trenton, N.J.
(609) 292-6036

Cost:
Contact Source

Copyright:
Yes, for development purposes only. (1974)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OVERVIEW:

The product was developed under contract for use in the New Jersey Statewide Assessment of Puerto Rican students. Field testing was conducted in the thirteen districts with the largest concentration of Puerto Rican students. In addition, a cross section of non-Puerto Rican students was tested in each site. Furthermore, the instrument was used for general needs assessment in the New Jersey districts of South Brunswick and New Brunswick.

The purpose of the assessment package is to provide a broad range of data concerning the current level of student achievement related to goals. This data can then be used by districts as a basis for program review and modification and the setting of program priorities. Assessment data can then be used by district decision makers to reallocate sources in terms of goals. Priorities can be established according to entities of effort, the number and type of courses geared to particular goals, and the number of pupils selecting those courses.

PROCEDURES:

The assessment package has the following characteristics:

1. The eleven scales measure the 19 goals in the widely used Phi Delta Kappa local goal setting process, plus, two goals in the area of bilingual/bicultural learning (Spanish).
2. The scales measure knowledge, attitude, and reported behavior and provide separate scores for each. In total, 91 separate scores are generated.
3. The scales are available in English and Spanish versions.
4. Teachers are involved in a consensual validation of the instruments for local use.
5. Each student completes one of the eleven scales. The scale the student completes is selected randomly. No names of students are reported nor are comparisons between classrooms available.
6. The scales are designed for use with grades 7-12 and are reported to be controlled for reading difficulty at a 5th grade level.
7. The total assessment process requires approximately 1-1/2 hours of student time.
8. The tests are domain referenced. Scores are reported as percent correct per grade.

IMPLEMENTATION:

This process would require the direction and assistance of the district administration and staff as would any assessment procedure. The specific procedures for implementation would have to be detailed by the Office of Program Development and the district.

SPECIAL FEATURES:

(1) Tests are available for assessment of the PDK goals as well as the two bilingual goals; (2) Assessment may be conducted at intervals since testing time is only 1/2 hour; (3) scales measure attitudual as well as factual recall; (4) the assessment is planned to assist administrators in making decisions for program improvement against particular goals; (5) the simplicity of the scales makes possible repeated testing in order to indicate pupil growth against school district goals over time.

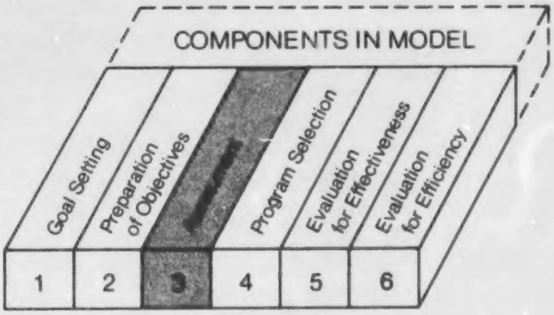
"Primer on Assessment-Instructional Program Development"

Developer:
Daniel J. Heisey

Source:
Instructional Services, Inc.
P.O. Box 53
Pluckemin, N. J. 07978
201-658-4249

Cost:
Contract or per diem arrangments to be made directly with I.S.I., Inc.

Copyright:
Yes, 1974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OVERVIEW:

Utilizing a modified Context-Input-Process-Product (CIPP) model, ISI personnel will tailor a student assessment program to the specific needs of the local district. The model provides for exact information on each pupil at district designated intervals in three areas of pupil information: 1) monitoring data pertinent to program evaluation; 2) reporting pupil progress against predetermined objectives, and 3) diagnostic information on individual student needs for the purpose of planning subsequent learning programs. The overall purpose of the model is to assist in instructional program development. The strategy of assessment is that of incremental change.

PROCEDURES:

The model is built on 1) the basis of teachers being committed to instructional program development; 2) the need for assessment information of immediate pertinence and usefulness to the teacher; and 3) that accountability is focused on the growth of the individual pupil. The procedures include: 1) determining the inputs for the operation of the instructional program; 2) assigning schedules for the completion of assessment tasks and evaluations (implementation); and, 3) analyzing assessment data and realigning program resources and procedures in order to improve instruction (redesign).

IMPLEMENTATION:

The assesement model, utilizing consultant input, requires seven team responsibilities: 1) decision-making regarding team planning and team teaching; 2) documentation of the instructional program in terms of student outcomes; 3) monitor testing design; 4) reports of program evaluation data; 5) mastery testing design; 6) design of student record keeping; and 7) reporting of pupil progress to parents. ISI uses Comprehensive Achievement Monitoring (CAM) for monitoring testing design and Student Achievement Mastery for mastery testing design (SAM). CAM is a program evaluation report, and SAM is an individual student reporting procedure. In the above items, 4, 6 and 7 constitute the Management Information System (MIS) aspects of the model and are optional components. School systems already having instructional objectives in measurable form (including single examples of test items for each objective) can have those materials built into the model and, thereby, reduce considerably the development costs. Where objectives do not exist the following steps are undertaken: 1) select program goals; 2) prepare preliminary program objectives; 3) prepare and field test items; 4) define program objectives; 5) design monitor testing (CAM); 6) design mastery testing (SAM); and 7) design diagnostic procedures.

SPECIAL FEATURES:

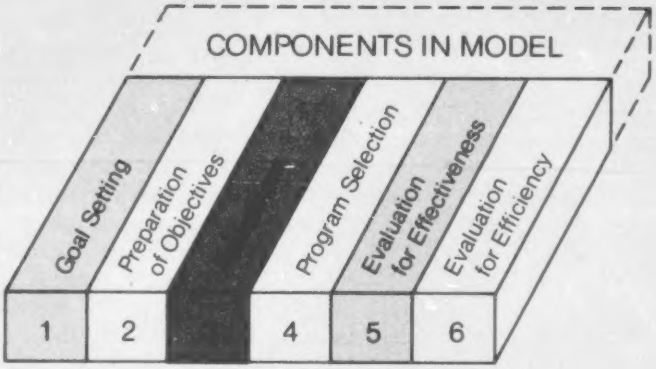
The model, in the aggregate, provides for: 1) total staff commitment and training; 2) an MIS; 3) the complete assessment process programmed on the DEC-PDP-8 computer including mass storage capability for computers having tape and/or disc; 4) multiple choices for reporting data formats. The model is in operation in New Jersey and has received wide interest.

Project "Cycle" - E.S.E.A. Title III

Source:
Newton Public School System
57 Trinity Street
Newton, New Jersey 07860
Harry Selover, Director
(201) 383-1900

Cost:
Contact Source

Copyright:
No (1973)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OVERVIEW:

Active community participation is a primary outcome of the goal-setting phase of Project Cycle, an ESEA Title III New Jersey program. A project director, working with a representative advisory council, involves the professional staff (administration, teachers, aides), students (grades 7-12), and parents of each school in the district. In three evening meetings, participants identify and agree on a list of school goals. A relatively simple concensus activity is used. Then a system-wide goal-setting committee (made up of representatives from local school committees) uses the local goals to agree on a list of system-wide goals. This list is distributed on an opinionnaire to the community-at-large. Residents are asked to rate and rank each goal as to its importance. Gathering a list of ranked goals is accomplished quickly and easily. A byproduct of the program is the communication which occurs among members of the educational community.

Placed in context, this goal-setting phase represents some of the first-year aims of Project Cycle. The entire project is an attempt to involve each student in a program of studies that is tailored to his/her learning needs and his/her characteristics as a learner. Three broad phases of the program include: 1) assessing needs; 2) writing measurable instructional objectives and programs based on student needs; and 3) evaluating the learning. Management information and program planning and budgeting systems are used in the project, but not for the goal-setting phase.

PROCEDURES:

1. The project director and advisory council identify school groups (professional staff, parents, and students) to participate.
2. At three meetings, participants, working in groups of ten, develop a ranked list of goals. Leaders for each group meet to share information and develop a final list of goals. Every participant votes on the goals.
3. System-wide representatives use lists of local school goals to develop one list of ranked goals for the entire system. The same concensus process used locally can be used.
4. Project director clarifies goal statements and helps system-wide committee to categorize (e.g. student goals, school-related goals, etc.).
5. An opinionnaire is developed asking the community-at-large to rate and rank each goal as to its importance.
6. This information is collected, tallied and summarized by the project director.
7. A final report is distributed to the board and community.

IMPLEMENTATION NEEDS:

A project director (an administrator) and some clerical help are needed to conduct the goal-setting phase. For subsequent phases, however, some consultant expertise and staff assistance will be required. The task can be accomplished easily in six to eight months. No major expenditures are required.

SPECIAL FEATURES:

Project "Cycle" includes:
... an active community participation at all levels.
... a quick and easy approach yielding goals based on concensus.
... a procedure for producing valuable information for further stages (e.g. writing program objectives).
... a procedure for relating school goals to system-wide goals.
... the first phase of a total educational planning system.
... a program overview available in sound-filmstrip.

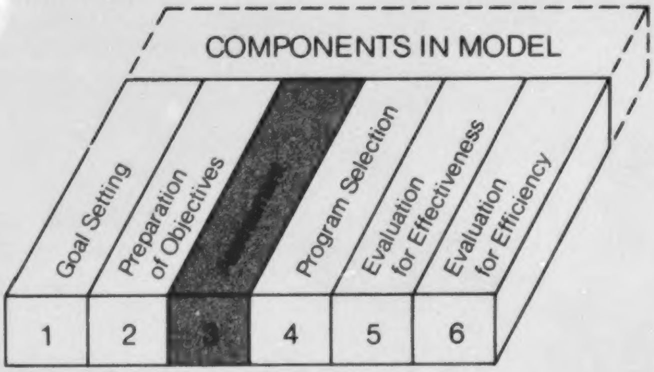
SCORE

Developer:
Westinghouse Learning
Corporation

Source:
Educational Services
Westinghouse Learning
Corporation
Post Office Box 30
Iowa City, Iowa 52240

Cost:
Contact Source

Copyright:
1973


COMPONENTS IN MODEL
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OVERVIEW:

SCORE is a criterion referenced testing, scoring, and data reporting system that can be used for defining pupil educational needs, grouping according to proficiencies, or measuring progress in accordance with student learning rates. SCORE includes over 8000 performance objectives, grades K-9, in reading, language arts, mathematics, science, and social studies. Additionally, there is a bank of over 20,00 related test items.

PROCEDURES:

The SCORE system cites the following steps toward implementation: (1) select objective catalogues; (2) select objectives; (3) specify numbers of students, test levels, and types of items selected; (4) test booklets are prepared and shipped to the district; (5) the SCORE test is administered; (6) SCORE test booklets are scored; (7) reports and analysis are sent to the districts.

IMPLEMENTATION NEEDS:

The Westinghouse Learning Corporation has regional consultants in educational measurement who will assist district personnel in designing, implementing, and evaluating the SCORE system.

Costs will vary with the numbers of students and levels of tests that are selected. Cost estimates can be provided after consultation.

SPECIAL FEATURES:

The SCORE system allows the local district to set mastery levels and also submit local objectives to be addressed in the tests. The test format provides for the construction of test items using pictorial materials, e.g., maps, graphs, sketches, etc.

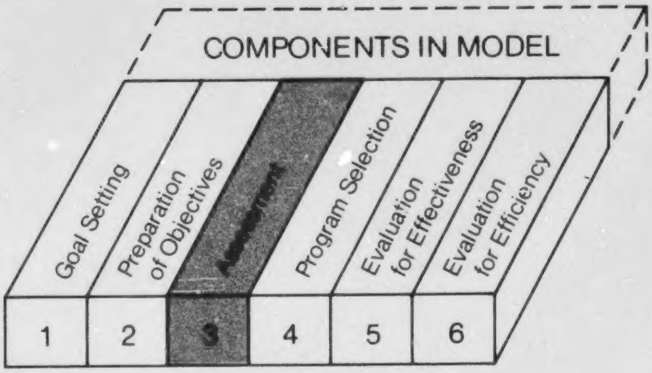
SRA Criterion - Referenced Measurement

Developer:
CSE-UCLA Center for
Study of Evaluation
UCLA

Source:
Science Research
Associates
259 Erie Street
Chicago, Ill. 60611

Cost:
Variable: Contact Source

Copyright:
Yes, 1974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OVERVIEW:

The criterion referenced measurement program consists of "diagnosis" and "mastery" assessment procedures. The purpose of diagnosis is to measure specific learning objectives by criterion-referenced tests called "Probes." These in turn are coded to a prescription guide, designed to identify necessary learning materials. The mastery approach consists of custom made criterion-referenced tests for individual and group evaluation. The diagnostic approach is available for both reading (grades 1-6) and math (grades 1-6). The mastery approach is available for grades 3-8.

PROCEDURES:

The general features of the diagnostic approach include:

- Survey test identifies weaknesses in broad areas and conducts the student to appropriate diagnostic "Probes."
- Specific "Probes" related to skill categories of SRA Achievement Series Skills Profile.
- Students in most classes score their own "Probes" for immediate feedback.
- Level A program includes some cassette-administered "Probes."

- Learning Objectives correlated in Prescription Guide to major reading textbooks, workbooks, duplicating masters, and SRA supplementary kits.
- Optional form of Survey Test provides for posttesting.
- Teachers are free to individualize instruction and do diagnostic-prescriptive teaching.

The general features of the mastery approach include:

- School district selects the objectives to be measured and SRA builds a test to these specifications (Reading is keyed to SOBAR and Math is keyed SRA development).
- Test is administered.
- Test is scored by SRA.
- Individual and group assessment is effected.

IMPLEMENTATION NEEDS:

Use of these materials and services requires selecting from SRA materials only. However, the diagnosis service then directs the teacher to multitext and multimedia approaches. Before implementation, a testing plan and schedule would need to be devised. Negotiations would also have to be made concerning scoring and reporting formats.

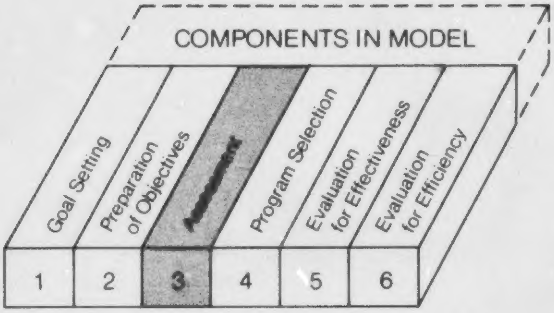
A Systematic Approach to Needs Assessment

Developer:
EPIC Diversified Services,
Incorporated

Source:
EPIC Diversified Services,
Incorporated
Tucson, Arizona

Cost:
See narrative on
following page

Copyright:
Yes, 1971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OVERVIEW:

The EPIC assessment program consists in identifying the differences between desired learner performance and actual learner performances resulting in learner needs. When needs have been identified the district can then determine those educational processes necessary to achieve the district's goals and objectives.

PROCEDURES:

The EPIC assessment program provides a variety of services in lieu of a standardized testing program. EPIC procedures are broken down into the areas of:

(1) comprehensive planning
(2) needs assessment
(3) criterion referenced testing
(4) evaluation

The needs assessment implementation requires that objectives have been determined relative to behavioral, instructional, and institutional variables, and that measurement strategies be adopted. At each step EPIC is prepared to provide whatever the local district cannot supply in procedures, measurement tools, and technical know-how.

Part of the model involves the use of EPIC's criterion referenced tests for language arts and mathematics. The tests provide four items per skill and content area.

The costs quoted are as follows:

Pre-School tests	Box of 25	$47.00
Language Arts	Box of 35	50.00
Mathematics	Box of 35	55.00
Additional answer sheets	Box of 300	25.00

The basic charge for development is $125.00 for each level. Scoring reporting and analysis services are also available from EPIC. The analysis can be by student, class and school or district. The costs are as follows:

Language Arts	$1.50 per student
Mathematics	1.50 per student
Battery (L.A. & Math)	2.00 per student

An item analysis is also available. A variety of test designs is possible and cooperative development of tests presents another possibility.

IMPLEMENTATION NEEDS:

In a sense EPIC provides all implementation needs if so desired. Otherwise, the local district provides what it can, and EPIC is contracted to provide an implementation plan for the rest of the model. Thus, EPIC's recommendations for additional needs will vary from district to district. Workshops, publications and cassettes are available from EPIC to fill some of the implementation needs.

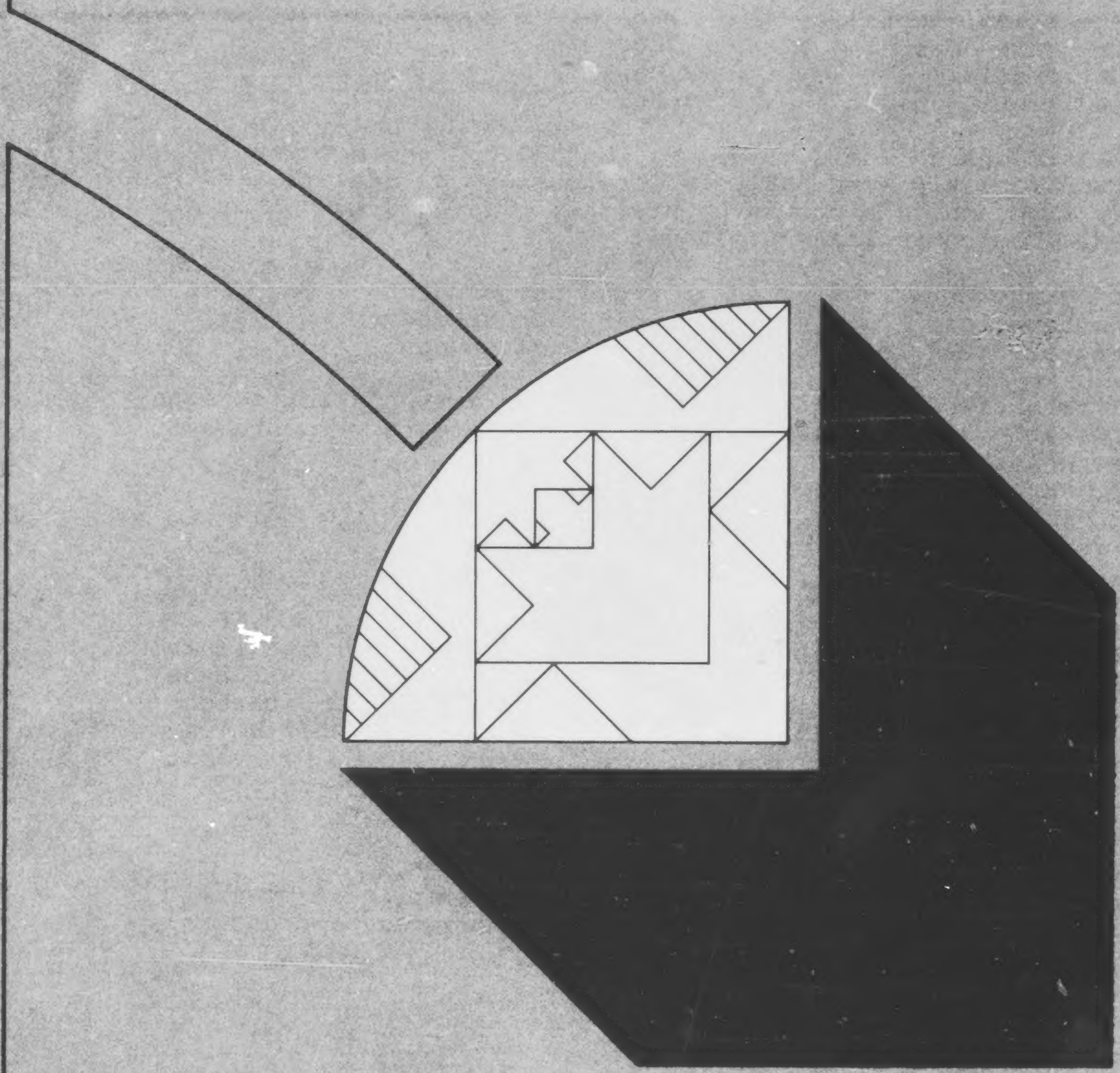
SPECIAL FEATURES:

EPIC can provide a variety of services to meet local specifications. Procedures, measurement tools, scoring, and analysis can be secured from one source.

component 4

program selection

needs identified from assessments findings



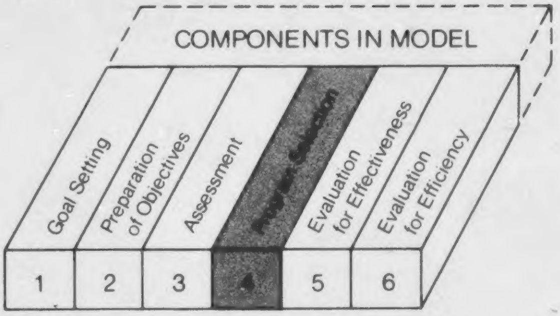
CSE Elementary School Evaluation Kit: Program Planning

Developer:
Center for the Study of Evaluation, UCLA Graduate School of Education, Dissemination Office

Source:
Dissemination Office, Center for the Study of Evaluation, UCLA Graduate School of Education, Los Angeles, California 90074

Cost:
Contact source.

Copyright:
1973 - Conditionally, as deemed appropriate by National Institute of Education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OVERVIEW:

The purpose of the KIT is to provide three procedures for school personnel to use in designing educational programs. A major premise for providing the KIT is that teachers and principals would often like to work on improving their own program, but do not know where to begin. Consequently, the KIT was developed to fill a void that appeared to exist because of the lack of specific strategies for educational program planning. Three benefits are anticipated through utilization of the KIT. They are: 1) development of programs tailored to the specific situation in the individual school; 2) the growth of the professional staff; and 3) improvement of the morale within the school. Separate materials for an evaluation of the process are included in the KIT.

PROCEDURES:

In order to differentiate between the three program styles included in the KIT, each style will be discussed separately.

1. In the Objectives-Based Planning Strategy, planners analyze their goal statement to desired program objectives; analyze their program objectives to secure behavioral objectives and develop activities which will enable children to exhibit the expected behaviors. A Planning Team using this strategy will spend most of its time and energy defining its objectives so that the team can list precisely and specifically

the pupil behaviors connected with them. Some time will be devoted to developing and sequencing classroom activities related to each behavioral objective, and then critiquing the activities to make sure that they are consistent with and provide practice for the objectives. The Evaluator will help team members decide the way in which pupil progress towards program objectives will be measured and judged.

2. In the Teaching Models Approach, planners use their goal statement to indicate the kind of learning the program will emphasize, then select teaching models or methods compatible with that emphasis. After exploring the teaching models which suggest types of teaching/learning activities based on a theory of learning, planners describe the activities which they themselves will use in the classroom and make explicit the behavioral outcomes which they anticipate will result from those activities. A Planning Team using this strategy will spend most of its time and energy discussing one or more teaching models, and deciding how to use them in its program. Some time will be spent on specifying the pupil behaviors and the program objectives expected as a result of the activities. The Evaluator will help team members decide how to evaluate their use of the model, as well as pupil achievement.

3. In the Planning Strategy Based on Available Materials, planners use their goal statement to indicate the general area of program concern, and then collect as many commercially available programs as possible from available sources. Planners examine these programs in terms of administrative and instructional applicability in their own schools, try out those which seem most applicable and then select the most appropriate one. They may then adopt the objectives and activities sequence as written in the program, or modify them as necessary. A Planning Team using this strategy will spend most of its time and energy collecting already developed programs, analyzing them in terms of its own needs, and, for the program selected, deciding where modification is necessary. The Evaluator will help team members decide if tests or other evaluation devices within the program are suitable for their own needs, and to develop others if necessary.

IMPLEMENTATION:

The KIT consists of a set of materials designed to help people in a school develop a written instructional plan for improving their educational programs. The KIT does not contain program plans. Rather, it provides techniques and information to assist schools in writing their own program plans. Aids are provided for people who play the following important roles in program planning:

A Planning Coordinator
An Evaluator
A Planning Team

The Coordinator is usually the school principal, or someone he selects. The Evaluator is usually a person within the school or district who is knowledgeable or interested in evaluation procedures and can work congenially with the Planning Team. The Planning Team is a small group of teachers and, perhaps, parent representatives. The KIT has a Handbook for the Coordinator, a Guidebook for the Evaluator, introductory materials, a Procedures Booklet and a Resource Book for each member of the planning team and a Chronicle for recording the team's decisions.

SPECIAL FEATURE:

The KIT provides a complete self-contained set of procedures and materials for program planning.

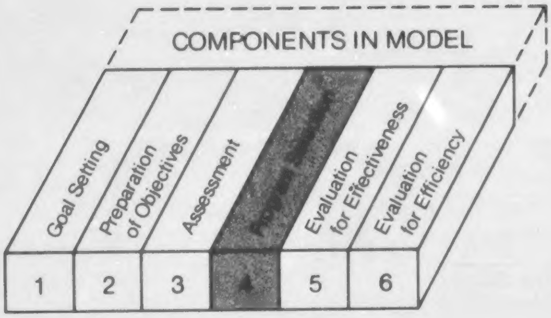
Individually Guided Education (IGE)

Developer:
Wisconsin Research and Development Center for Cognitive Learning of the University of Wisconsin

Source:
Wisconsin Research and Development Center and the Institute for Development of Educational Activities, Inc. (I/D/E/A) of the Charles F. Kettering Foundation,
Dayton, Ohio
(608) 263-4222

Cost:
Contact Source

Copyright:
Yes 1969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OVERVIEW:

There are seven major components of IGE:

An organization for instruction, called the multiunit organization, is designed to provide for educational decision making at several different levels; to open communication among students, teachers and principals; to institute accountability by educational personnel at various levels.

A model of instructional programming for the individual student. This is designed to aid teachers in planning and carrying out an instructional program for each student that takes into account his objectives rate of learning, level of motivation, etc.

A model for developing measurement tools and evaluation procedures. The model includes preassessment of children's readiness; assessment of progress, and of final achievement with criterion-referenced tests; feedback to the teacher and the child; and evaluation of the IGE design and its components.

Curriculum materials, related statements of instructional objectives and criterion-referenced tests and observation schedules.

A program of home-school communications that reinforces the school's efforts by generating the interest and encouragement of parents and other adults whose attitudes influence pupil motivation and learning.

Facilitative environments in school buildings, school system central offices, state education agencies and teacher education institutions.

Continuing research and development to generate knowledge and to produce tested materials and procedures.

The following are some of the innovations that are a basic part of IGE:

- Nongraded instruction, in which every student either works independently or is grouped and regrouped with others according to his progress toward or interest in attaining his instructional objectives regardless of age or years in school.
- Team teaching, in which groups of teachers assess pupil progress, devise instructional strategies to solve individual problems, divide teaching assignments according to specific abilities and interests of each individual member of the team, and help one another grow professionally.
- Continuous progress, in which every student advances as quickly as he can or as slowly as he must depending only on his individual ability.
- Peer-group instruction, in which students of different ages work together in either small groups or in pairs to solve common problems.
- Differentiated staffing, in which outstanding teachers serve as unit leaders of a team in order to direct the education of children and to provide leadership and assistance to other teachers.

SPECIAL FEATURES:

IGE is a comprehensive design--a total system of education at the elementary, middle/junior and secondary school levels that provides a realistic alternative to the age-graded, self-contained classroom and the traditional form of organization.

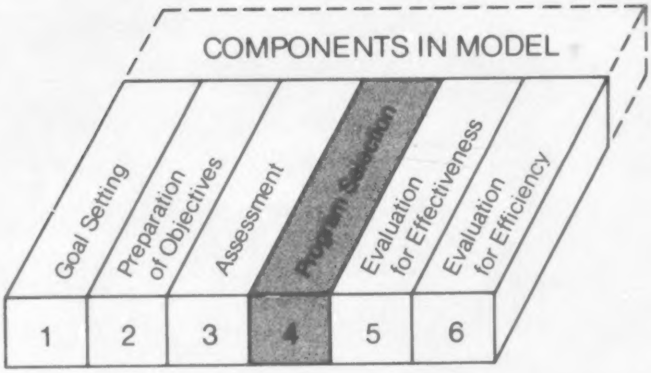
Instructional Design - A Plan for Unit and Course Development

Developer:
Jerald E. Kemp

Source:
Fearon Publishers
Lear Sigler, Inc.
Education Division
6 Davis Drive
Belmont Cal. 94002
Lib. of Congress Cat.
Card. # 77-140897

Cost:
$2.25 (paperback)

Copyright:
1971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OVERVIEW:

It is the purpose of this book to examine the "design element" of educational innovation. How can a single teacher, a teaching team, or a curriculum development group bring a fresh approach to planning or revising a unit of study? This book (paperback) offers such a plan, together with practical suggestions and realistic examples for achieving various kinds of learning outcomes.

Students, teachers and curriculum planners will find this book useful as they develop new instructional programs. The book's consideration of an instructional design plan and technological development for improving education should be of particular interest and value to the practicing or aspiring instructional designer.

PROCEDURES:

The goal of any educational program is to contribute to student growth by bringing about positive change in the student's attitudes, ways of thinking, knowledge, and skills. This change must be brought about through the efforts of the learner himself as he learns. The teacher's teaching is only a means to this end. The main task of the teacher is to structure experiences that will lead to specified, desirable changes and then to motivate and stimulate the student to learn.

The basic questions to be answered are:

1. What must be learned?
2. What procedures and materials will work best to reach the desired learning levels?
3. How will we know when the required learning has taken place?

The plan consists of eight steps:

1. List topics, stating the general purpose for each.
2. Enumerate the important characteristics of the student group for which the instruction will be designed.
3. Specify the learning objectives to be achieved in terms of measurable student behavioral outcomes.
4. List the subject content that supports each objective.
5. Develop pretests to determine the student's background and present level of knowledge about a topic.
6. Select teaching/learning activities and the necessary instructional resources that will treat the subject content to accomplish the objectives.
7. Coordinate such support needs as budget, personnel, facilities, equipment, and schedules to carry out the instructional plan.
8. Evaluate student learning in terms of the accomplishments of objectives, with a view to revising and reevaluating any phases of the plan that may need improvement.

IMPLEMENTATION NEEDS:

The following topics are considered in the text:

1. A plan for instructional design. It consists of a sequence of steps that includes statements of precise learning objectives, selection of specific teaching/learning experiences, and measurement of student achievement.
2. A method for handling the working mechanics during the planning process.

3. The personnel capabilities required during the planing and implementation of the program.
4. Techniques for working with teachers and support personnel to insure success of the program.
5. Ways to measure the effectiveness and efficiency of the plan.

Professional skills in at least eleven different areas are essential for planning the instructional design and for running a program. It is very likely that some members of the planing team will either have a number of these skills to some degree, or be able to acquire them. The broader the abilities of members of the team, the better qualified the group will be and the less cumbersome will be the size of the total working group. The responsibilities of the different members of the planning team are listed below. The order of the listing does not imply an order of importance.

Teacher, Instructional Designer, Curriculum and Subject Matter Expert, Learning Theorists, Testing and Measurement Specialist, Administrator, Media Specialist, Librarian, Technician, Aides, Secretary, Students (Brief job descriptions are provided for each of the planning team members.)

The author states that the initial planning team should be small. It may consist of one or more teachers who have subject-content capabilities, an instructional designer who has media-specialist capabilities, and an evaluation expert who has learning theory capabilities. It is possible that a team of two people may possess all the necessary skills. Persons with other abilities should be brought into the program as their services are required.

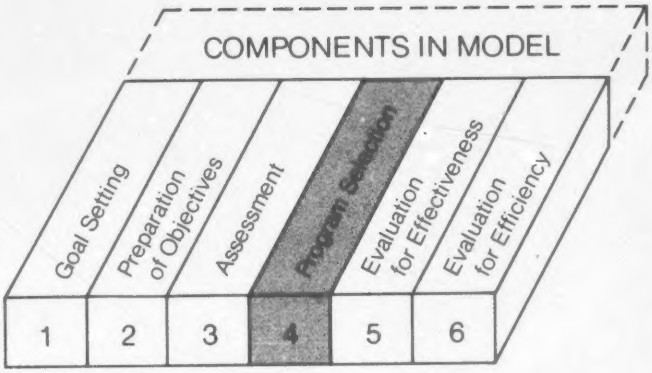
Instructional Systems

Developer:
Bela H. Barnathy

Source:
Fearon Publishers
2165 Park Boulevard
Palo Alto, Cal. 94306
Lib. of Congress
Cat. Card

Cost:
$2.00 (paperback)

Copyright:
Yes, 1968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OVERVIEW:

The book presents recommendations for the use of a systems approach in designing curriculum or selecting needed programs. The book discusses the use of simple system development strategies on a level of immediate use to teachers. The book can be used in several different ways enabling the reader to understand systems approaches in curriculum development. A productive competence can be attained if, in addition to reading the book, the user applies the strategies described. The book can also be used in a course on curriculum construction or in in-service training programs.

PROCEDURES:

The procedures involved in implementing the system are broadly classified as follows:

1. Systems and education
2. Systems for learning
3. The formulation of objectives
4. The analysis of learning tasks
5. The design of the system
6. Implementation and quality control

The design of the system (#5) is guided by the following inquiries:

1. What has to be done to enable the learner to master the task?
2. Who or what has the capability of doing whatever has to be done?
3. Who or what will do exactly what?
4. When and where will they do it?

Consequently this phase of systems development will consist of four major strategies:

1. Functions analysis (what has to be done and how).
2. Components analysis (who or what has the potential to do it).
3. Distribution of functions among components (who or what will do exactly what).
4. Scheduling (when and where it will be done).

The author defines and illustrates four major strategies.

IMPLEMENTATION NEEDS:

Before the system can be installed, two additional strategies must be completed--system training and system testing. System training helps to refine the operational interrelationship and the integration of the components and sub-systems. System testing serves the purpose of ascertaining whether the system can perform the processes for which it was designed. The system requires continuous evaluation and is monitored by addressing the following questions:

- Are objectives clearly stated and formulated along measurable and operational lines?
- Does the criterion test truly reflect the objectives?
- Have we interpreted our objectives properly in exploring the learning tasks?

- Have we properly assessed and tested input competence?
- Do the learning tasks identify the critical items to be learned?
- Are enabling activities referenced to the objectives of the system?
- Were any tasks identified that do not contribute to the attainment of the objectives?
- Have we selected the best possible and most economical learning components and have plans been made to evaluate these components?

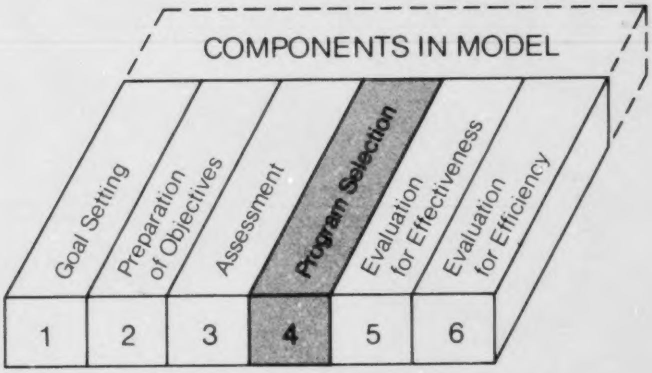
MODIA: Method of Designing Instructional Alternatives

Developer:
Rand Corporation

Source:
Rand Corporation
Santa Monica, Cal.

Cost:
$3.00 8 1/2" x 11"
staple bound documents

Copyright:
1971, 1972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OVERVIEW:

The MODIA reports are an attempt to apply systematic methods of analysis and synthesis to issues and problems in education. The MODIA reports present a systematic process for designing a mix of instructional facilities, materials, and students, and the process by which all of these elements might work together to affect student mastery of subject matter.

PROCEDURES:

The MODIA system consists of a sequence of procedures and semi-automated tools that allow a designer to examine many alternative structural approaches before a system is chosen. The utility of various approaches can be assessed in terms of student outcomes or the consumption of human and material resources.

The MODIA process consists of eight steps:

1. Analyze characteristics of the learner population that will affect the way the course will be taught.
2. Use the Questionnaire for stating General Policy to specify the broad goals underlying the teaching institution's operation.
3a. Use the Curriculum Analysis Questionnaire to classify each lesson in system-oriented terms, and to characterize each lesson's requirements for communication media.

3b. Specify instructional strategies with the help of DISTAF (DETERMINING INSTRUCTIONAL STRATEGIES FOR TRAINING IN THE AIR FORCE). Each strategy identifies the teaching agent and the way students will interact with this teaching mode.
4. Specify design criteria input from the teaching institution, such as least course cost, shortest course length, or maximum student graduation rate.
5. Describe local resources, such as the number of students entering the school and the school's resources and constraints.
6. Design the instruction using as direct inputs information from the Curriculum Analysis Questionnaire, DISTAF, the design criteria, and the local resource description.
7. Analyze the costs to determine the system's time-dependent dollar requirements.
8. As necessary, depending on the acceptability of the outputs, repeat steps 1-7 (with different inputs) until the most desirable system emerges.

IMPLEMENTATION NEEDS:

The MODIA System was developed to meet specifications of the U.S. Air Force and consequently many of the descriptions don't fit the more general requirements of public education. As a result adaptations to local school situations will be needed. Also the consideration of highly varied strategies will necessitate the utilization of a computer program available from the RAND corporation. The RAND corporation lists the following major tools that must be developed to complete the system: a generalized computer model of student flow, a computer model for estimating resource requirements and a questionnaire for detailing local resources. Obviously such sophistication in computer application in the most involved application would require outside consultation.

SPECIAL FEATURES:

Although the decision process is intended to provide input for a semiautomated methodology for designing instructional programs it also:

1. assists the planner in making explicit judgments about what constitutes effective instruction.
2. assists the planner in stating policies that guide school and classroom operations.
3. provides a comprehensive, logically consistent set of decisions that should be considered in planning instruction.
4. provides simple applications of the MODIA system which can be manually employed.

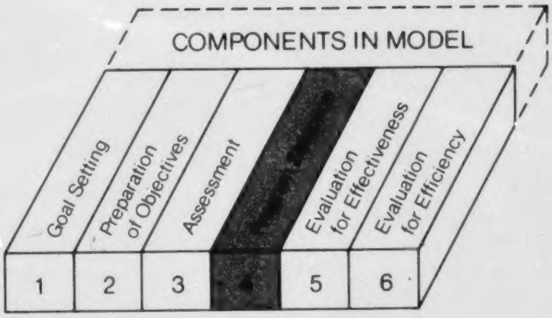
"Pathways to Success"

Developer:
Dorothy Soper; N.J. Office
of Program Development

Source:
N.J. Div. of Research,
Planning & Evaluation
Project Center
1000 Spruce Street
Trenton, N.J. 08638
(609) 292-8454

Cost:
No charge for single
copies in New Jersey

Copyright:
No (1974)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OVERVIEW:

This manual was designed to contribute to the selection of successful educational programs developed and validated nationally by schools throughout the nation. The developers have also described it as a "development system" for education. When fully operative local educators will be able to identify local needs for development work, use basic research to design and field test new programs, and make successful programs available to those wishing them.

PROCEDURES:

1) Identification of an educational need for which no program is available in the district; 2) Define results desired; 3) Review existing programs for their applicability; 4) Secure pertinent available materials; 5) Replicate a program developed in other districts for which materials and training are available; 6) Replicate a program developed by other agencies for which materials and training are available; 7) Consult appropriate research; 8) Design, field test, and evaluate a new program; 9) If program is successful, make it available to educators beyond originating district.

The cycle which produced the innovation is the "how to do it" information that will permit a "consumer" district not only to use a new program or materials, but also to adapt the innovation to the unique requirements of a different situation through an application of the problem-solving process itself. Also, the program must be based on research findings, have specific measureable goals, a precise plan of action, and an evaluation design. The program must have been successful in having met its predetermined goals. A final concern is that the program be cost effective for the consumer district. In other words the costs required to maintain the program and improve performance should not generally exceed existing expenditures.

IMPLEMENTATION NEEDS:

The consumer district should evaluate the suitability of a program in comparison to its own educational needs, goals, population and resources. This evaluation should indicate appropriateness and feasibility. Also, an adopting district must indicate willingness to submit to evaluation and provide the costs involved in providing time for travel, training, and instructional materials.

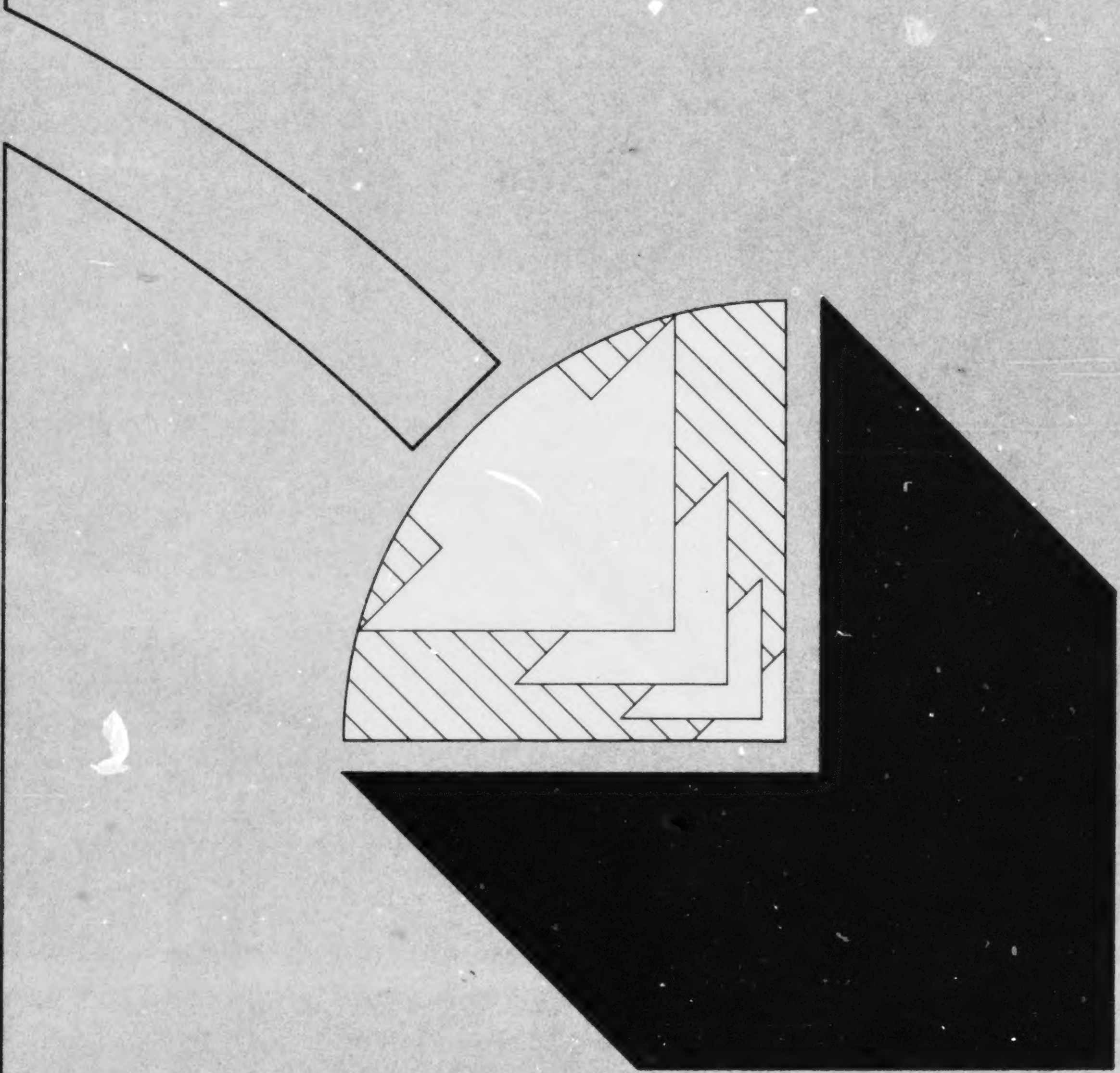
SPECIAL FEATURES:

The model is a turnkey approach to program implementation. Training in the problem-solving process as related to future educational needs is included.

component 5

program effectiveness

models for evaluation



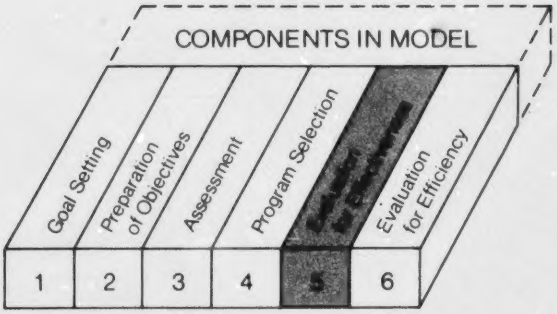
Countenance of Educational Evaluation

Developer:
Robert E. Stake

Source:
Teachers College Record
Vol. 68 #7 April 1967
New York, N. Y. pp. 52-69

Cost:
$4.00 (appears as a
Journal article)

Copyright:
1967



OVERVIEW:

This model introduces the multidimensional efforts involved in conducting a full program evaluation. The focus is paroramic rather than microscopic. The broad intent of the model is to discover congruences or contingencies between unstructural intents and student outcomes. A series of matrices are proposed for the collection and judgment of data.

PROCEDURES:

Evaluators work from a series of data matrices. The procedure is to collect and/or prepare such information as is needed under three general headings, i.e., 1) a "description-judgment" matrix including descriptions of instructional intents, interactions or transactions, and outcomes; 2) a matrix for processing descriptive data; and 3) a matrix for making comparisons between programs and standards of excellence, and their resultant judgments. The evaluator's first responsibility is to describe in adequate detail the antecedents (baseline and contributory factors), transactions (teacher-pupil/teacher administrator etc. interactions), and outcomes (both learner and staff) for the project in question. These three levels of data are then placed on a four heading format such that each level of input can be compared (evaluated) relative to intents, observations, standards and judgments. In other words data from the descriptive matrix is juxtaposed with data from a judgment matrix. The model's author contends that it is the evaluator's responsibility to prepare such objectives as are to be included in the evaluation. Having prepared the descriptive data necessary for intended antecedents, transactions and outcomes, he then enters the corresponding data for observed antecedents, transactions and outcomes. Judgments of congruence are then made. This model also provides for judgments on the logical and empirical contingencies between descriptive and observed data. The final procedure is that of making relative comparisons between:

- Descriptive data from similar programs
- Descriptive data from the project in question
- Standards of excellence/resulting judgments

Also, the model provides distinctives between relative and absolute judgments, and suggests elements for the evaluation design's rationale.

SPECIAL FEATURES:

This model is one of the pioneers in the formulation of new approaches to evaluation. While the material is somewhat dated, there are still many strengths to the comparative procedures proposed. The primary usefulness of the model lies in the contribution it makes to the construction of a rationale.

Criterion-Referenced Test Concepts
EPIC Criterion-Referenced Tests

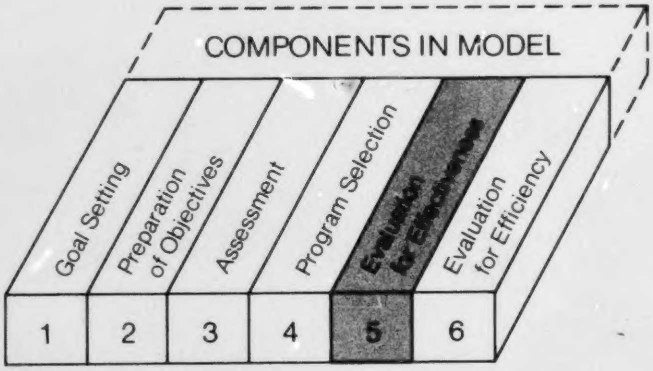
Developers:
E. Wayne Roberson
Allan W. Gibson

Source:
Educational Innovation
Press, P. O. Box 13052,
Tucson, Arizona 85732

Warren Plaza West,
Rt. 130, Hightstown,
N. J. 08520 (Reg. Off.)

Cost:
$2.95 (paperback)
Consultant services
costs vary by contract.

Copyright:
1975


COMPONENTS IN MODEL
Goal Setting
Preparation of Objectives
Assessment
Program Selection
Evaluation for Effectiveness
Evaluation for Efficiency
1
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OVERVIEW:

This booklet has been written to assist the reader in the following areas:

1. Defining criterion-referenced tests
2. Reviewing the advantages and disadvantages of criterion-referenced tests
3. Determining how norm-referenced and criterion tests differ
4. Utilizing criterion-referenced results

PROCEDURES:

The booklet is written in response to six questions:

1. What is a criterion-referenced test?
2. How do criterion- and norm-referenced tests differ?
3. What are the advantages and disadvantages of a criterion-referenced test?
4. How are criterion-referenced tests constructed?

5. How are reliability and validity established for criterion-referenced tests?
6. How are criterion-referenced test results reported?

Additionally, EPIC has available criterion-referenced tests that incorporate seven sequential program studies-lists of the basic skills and concepts included in the specific curriculum areas to be assessed. Each skill and concept is tested by four different test items of equal difficulty. These tests are performance objective based, and geared to learners with different test-taking abilities. Standardized test procedures advance in sophistication as the student advances in test-taking ability. The tests are designed to:

- determine what skills and concepts the learner has mastered
- identify needs related to these skills and concepts
- assess performance objectives
- comply with federal program evaluation guidelines

In constructing test items the school district may select items from EPIC's item pool or choose to develop its own items with technical assistance from EPIC consultants.

Domain Referenced Curriculum Evaluation:

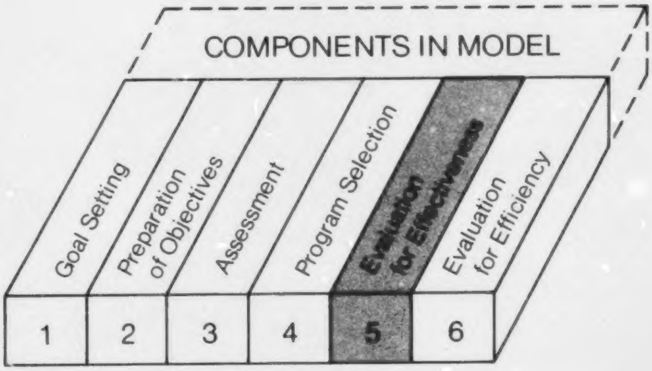
A technical Handbook and a Case Study from the Minnemast Project

Developers:
Wells Hively, Graham Maxwell, George Rabehl, Donald Sension, Stephen Lundin

Source:
Center for the Study of Evaluation
U.C.L.A.
Los Angeles, Cal. 90024

Cost:
Contact Source

Copyright:
1972


COMPONENTS IN MODEL
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OVERVIEW:

This monograph has three interwoven themes. It contains 1) a technical handbook for the application of doamin-referenced test theory to educational evaluation, 2)a case history of the curriculum project in which the technology was developed, and 3) an essay on strategies of educational development and evaluation. By interweaving the three theories, the desire is to illuminate some of the technical and strategic problems of educational development from angles that are hard to represent in shorter theoretical articles or technical reports.

PROCEDURES:

The exposition is as follows: Chapter I gives a brief summary of the history and mode of operation of the Minnesota Mathematics and Science Teaching Project (MINNEMAST). Chapter II treats the rationale that underlines domain-referenced achievement testing and the technology through which it was applied to evaluation of the MINNEMAST Curriculum. Chapter III examines organizational factors that have in the past limited the effectiveness of empirical, formative evaluation in many large-scale curriculum projects and suggests an alternative strategy for the future. Readers mainly interested in evaluation technology should concentrate on Chapter II. Those whose main interest is in strategies of educational development and evaluation should concentrate on Chapter III, skimming Chapters I and II to put meat on the skeleton of generalities encountered there. Those whose main interest is in the history of the evaluative effort in the MINNEMAST Project should read Chapters I and III, skimming Chapter II. To escape from superficiality, an adequate exposition of domain-referenced curriculum evaluation required a large fund of examples. These have been collected into several appendices. Two particularly important cases can only be made by examining the appendices and are worth emphasizing here. First, that the "item form" approach is not simply a way to operationally define pre-specified goals but is much more fundamentally a way of teasing out and discovering implicit goals. Second, that the power of the "item form" approach lies in the discovery of patterns of student performance that pinpoint the dimensions along which success (or failure) generalizes.

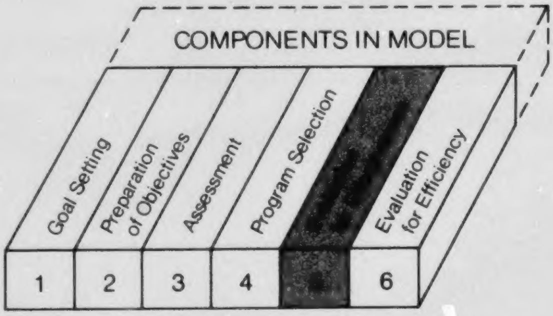
Educational Evaluation and Decision Making

Developers:
Daniel I. Stufflebeam, et al, PDK National Study Committee on Evaluation

Source:
F.E. Peacock Publishers, Inc., Itasca, Illinois

Cost:
$8.50 (hardbound)

Copyright:
1971



OVERVIEW:

This book is one of the products of the Phi Delta Kappan (PDK) National Study Committee on Evaluation which was established for the purposes of: 1) delineating the status of our knowledge about the process of evaluation; 2) collecting, analyzing, and providing critiques of models of evaluation that had been proposed in the past; 3) synthesizing the strengths of existing models into one which had the potential for meeting the demands of the times; and 4) describing that model in language meaningful to the practitioner assigned program evaluation responsibilities.

The general purposes of this book are to deal with the kinds of problems evaluation raises and to devise appropriate solutions. There are four specific objectives:

1) To expose, in detail, five problem areas: definition, decision making, values and criteria, administrative levels, and the research model.

2) To identify and assess extent or emergent formulations that might be used in conceptualizing solutions to these five problems, and to fashion them into tentative solutions.

3) To synthesize a new definition and methodology of evaluation that builds upon the products of objective 2.

4) To provide some operational guidelines for implementing the proposed new approach in terms of personnel, organization, and administration.

This is a book for a variety of audiences directly or indirectly concerned with the art and science of evaluation, including not only the producers and consumers of evaluation but the theoreticians, teachers, consultants, measurements experts, systems analysts, statisticians, data processors, computer specialists, and others who must relate to it in one way or another.

Issues considered included: decision-making behavior of administrators, theoretical formulations of evaluation and decision making, value conflicts, multiple information requirements at different organizational levels, appropriateness of extant research techniques for use in evaluation, the role of evaluation systems, and the training of evaluators. These disparate issues were considered appropriate for consideration in this book, since a comprehensive solution to the many problems which block sound evaluation was being sought.

The analysis and synthesis contained in this book reveal that no single group possesses all of the competencies necessary to provide effective and efficient evaluation. Nothing short of a concerted team effort will do. Administrators, curriculum developers, evaluators, research methodologists, communications experts, theoreticians, philosophers, planners, and educational technologists, among others, must contribute from their special areas of expertise to the solution of evaluation problems.

To be adequate to the overall task, these contributions must be coordinated. Such coordination can be effected through the establishment of special evaluation units in educational institutions. Thus, this book is directed at those who commission the development of evaluation units, operate the units, use the information produced by the units, comprise evaluation teams, produce methods and materials for use in evaluation units, and train staff for work in evaluation units.

PROCEDURES:

The basic procedures of a sound model for educational evaluation are distributed under four major headings and sixteen steps as follows:

1. Planning Decisions -- General Setting

   Step I - Awareness (Monitor program to identify needs and opportunities and rank needs and opportunities.)

   Step II - Design (Identify alternative conceptions of the problem to be solved and specify the problem selection parameters.)

   Step III - Choice (Assess alternative problem statements from different value positions and select the problem.)

   Step IV - Action (Assess whether the problem solution will require large or small change and the degree to which information is available to guide the change activity, and specify the objectives.)

2. Structuring Decisions -- Neomobilistic Setting

   Step V - Awareness (Enlist the services of the evaluator and identify the structuring questions that follow from the change objective.)

   Step VI - Design (Choose a decision model, set problem parameters and devise several solution strategies.)

   Step VII - Choice (Assess the alternative strategies and choose the best alternative.)

   Step VIII - Action (Perform structured inquiry to assist in programming the chosen change strategy and program the strategy over a long time span.)

3. Implementing Decisions

   Step IX - Awareness (Identify and monitor barriers to success and determine when a barrier should be ameliorated.)

   Step X - Design (Continue at least one design for modifying the design or procedure.)

Step XI - Choice (Assess proposed change and decide whether or not to use one of the proposed changes.)

Step XII - Action (Adjust the evaluation design and program changes decided upon.)

4. Recycling Decisions

Step XIII - Awareness (Monitor attainments to identify discrepancies between performance and objectives, and determine whether to attend to a discrepancy.)

Step XIV - Design (Conduct structured inquiry and conceptualization to identify possible causes of the discrepancy, determine probable causes, and formulate responses.)

Step XV - Choice (Conduct means-ends analysis, if required, and decide whether to recycle the change procedure.)

Step XVI - Action (Prescribe what changes, if any, are to be effected.)

IMPLEMENTATION:

1. The purpose of the evaluation unit should be described in detail through a specific set of objectives.
2. The evaluation unit should be staffed in accordance with the many roles to be performed in evaluation.
3. Agency policies must be updated to include policy statements governing access to date, dissemination of reports and information, and activities involving unit personnel in their daily operations.
4. Adequate facilities and equipment should be provided for evaluation. Another important characteristic of evaluation units is the equipment and facilities required to implement programs for evaluation.
5. Underfinanced programs providing limited personnel and facilities can only lead to inadequate information for decision making.

6. Eliminate the anxiety symptom by creating a healthy environment for evaluation.

SPECIAL FEATURES:

The book is designed according to the format of the model of evaluation it extends. The content is comprehensive and addresses the practical application of the evaluation model.

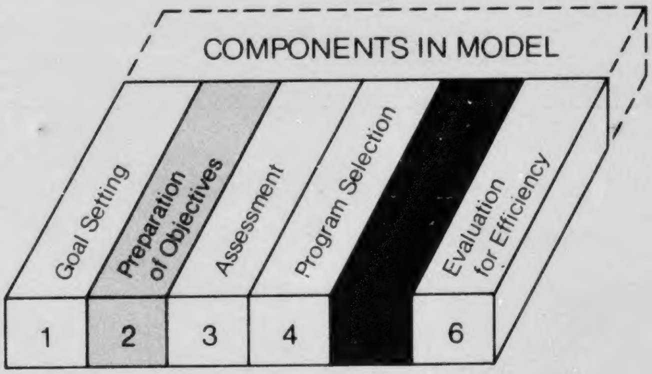
Educational Product Evaluation

Developers:
Bernabei and Leles

Source:
Leadership Development
Training Program in
Education, Lern Assoc.,
Gardy Printing Co.
Doylestown, Penna.18901

Cost:
$2.50 (paperback)

Copyright:
1972



OVERVIEW:

This model is a workshop study guide which is appropriate for teachers, supervisors, department heads, and principals who are concerned with the translation of educational goals into precise program objectives that can then be measured and operationalized. Emphasis is placed on three phases of program planning: 1) preliminary stages (planning and assessment), 2) intermediate stage (programming, evaluation, test selection, data collection, and objective refinement), and 3) final stage (mechanics of model development, administrative operations and techniques dealing with "How to do it," and, "How much it costs.")

This model presents the concept of a program development system in terms that are relevant to classroom teachers. Workshop participants are led through each stage of model development with refinement exercises provided in the text materials to translate needs to goals and goals to objectives which are designed to embody measurable performance standards.

IMPLEMENTATION NEEDS:

The model should be implemented through some form of trained leadership to direct and coordinate the workbook exercises. A serious study group, however, could work through the model using only the publication. The self testing exercises throughout the publication could be used as a source of feedback for understanding the program development model.

SPECIAL FEATURES:

The section dealing with evaluation and instrument selection is a strong feature of the model because it provides a guide to the task of selecting appropriate instruments and procedures for a wide variety of program objectives.

The section of the model which deals with instructional considerations presents a general, stylized, concept of teaching strategy. The treatment of this issue lacks the specificity that characterizes other sections of the model and additional information would be required for a more definitive understanding of the instructional process variables.

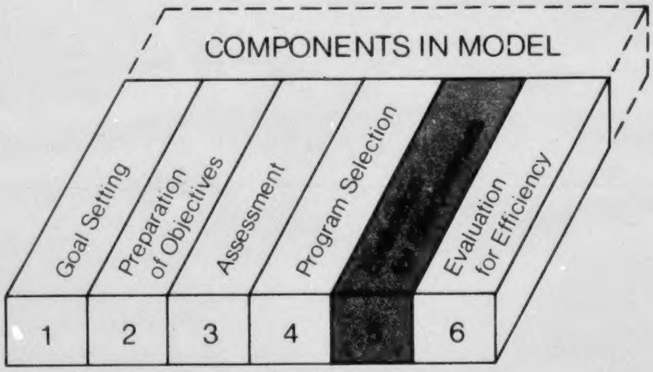
The strongest aspect of the model is its potential for encouraging teachers to utilize a program evaluation system in an applied, practical way.

Evaluation for Administrative Action

Source:
Journal of Research and
Development in Education
College of Education/
University of Georgia
Athens, Ga. 30601

Cost:
$4.00

Copyright:
1970



OVERVIEW:

The purpose of this publication is to provide critical commentary on evaluation issues and evaluation models. The publication consists of articles written by evaluation theorists for educators deeply involved in the application of theory. Practitioners engaged in evaluation design would find the publication of value.

The material ranges from "sophisticated" to "esoteric" in style and content. The Journal is recommended for those who possess a knowledge of existing concepts and theories of evaluation model design. Selected articles, such as "More Effective Research Through The Use Of Process Evaluation Techniques," will offer new or modified evaluation design ideas to educators who are responsible for the creation and implementation of evaluation programs. The schema which accompanies the Process Evaluation Paradigm (PEP) model illustrates effectively the information flow and critical decision points in a process evaluation model.

This model would be particularly helpful to educators concerned with integrating evaluation monitoring strategies in existing programs or developing evaluation models for program improvement, management, and refinement.

IMPLEMENTATION:

The information contained in this publication is more appropriately applied to critical thinking, evaluation and examination of model design than to adoption or direct implementation activities. The critical commentary in the publication deals more with theoretical design issues than with training or implementation strategies.

SPECIAL FEATURES:

The research base of the model and the bibliographical material supporting the critical commentaries are a strong feature of the publication. The Journal could be an important resource to include in a professional evaluation library collection.

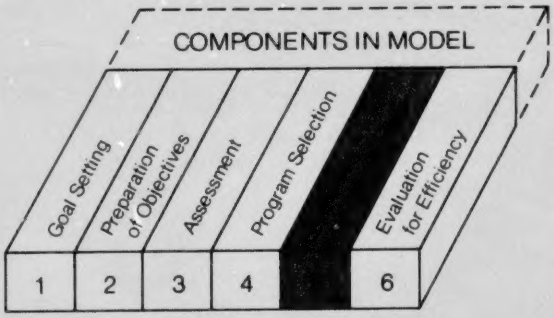
Evaluation Design

Developer:
Educational Innovator Press
Box 13052
Tucson, Arizona 85711

Source:
EPIC Warren Plaza West
Route 130
Hightstown, N.J. 08520

Cost:
Contact Source

Copyright:
Yes, 1970


COMPONENTS IN MODEL
Goal Setting
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OVERVIEW:

The purpose of the publication is to acquaint individuals with basic aspects to consider when developing an evaluation design or system. However, a basic knowledge of evaluation design concepts and language appears to be necessary for one to employ this publication. The publication has a very brief narrative treatment of the subject of evaluation design and most of the material is presented graphically in flow chart fashion. The publication uses "classical statistical terms and concepts" in its description of steps.

PROCEDURES:

The model would be helpful in the design of an evaluation system or as a source of criteria for a review of an existing evaluation model. Chapters 4, 5, and 6 are particularly applicable to an evaluation design review process since they include:

1) a checklist for appraising evaluation designs;
2) a critique of evaluation designs, and
3) evaluation design tasks.

IMPLEMENTATION NEEDS:

No implementation strategies are provided in the publication. The model serves primarily the specialist who is already conversant with design language as a quick source of review criteria for evaluation design.

SPECIAL FEATURES:

A feature of this publication is the section dealing with possible sources of error in the interpretation of evaluation results.

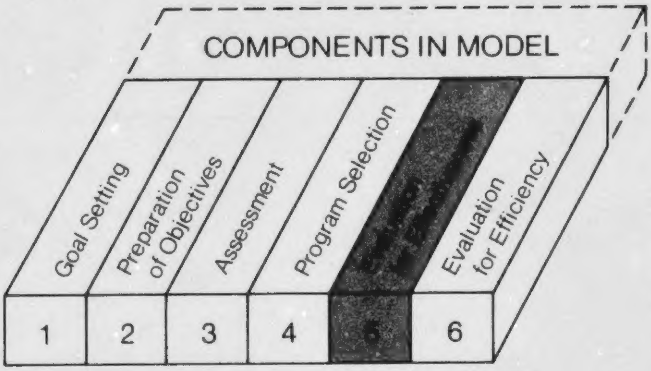
An Evaluation Guidebook

Developer:
W. James Popham

Source:
The Instructional Objectives Exchange
Box 24095, Los Angeles,
California 90024

Cost:
$2.50 (paperback)

Copyright:
1971



OVERVIEW:

This guidebook contains a set of practical guidelines for the educational evaluator. The document's purpose is to outline those steps considered necessary to comprehensive evaluation while simultaneously offering users options on procedures. The guidebook's contents are divided into 20 steps in three sections. The sections are addressed to 1) objectives, 2) measurement, and 3) data collection and analysis. For assistance in making more efficient use of this resource tool the guidebook has tersely defined guidelines for each of the steps, as well as full descriptions of each step. The appendices contain both an example of how the guidelines might look in an actual situation, and a matrix comparing different approaches (and sources) for evaluation design. The guidebook also includes an excellent bibliography.

PROCEDURES:

The 20 proposed steps or guidelines are chronologically sequenced. The language is clear and jargon free. The steps are:

Objectives

1. Measurable post-instruction learner behavior
2. Permitting a proportion of unmeasurable objectives
3. Criteria of adequacy for constructed response

4. Content generality and test item equivalence
5. Minimal proficiency levels
6. Taxonomies of educational objectives
7. Selecting objectives from extant collections

Measurements

8. Criterion-referenced measurement
9. Domain-referenced achievement testing
10. Multiple criterion measures
11. Unobstrusive measures
12. Unanticipated outcomes

Data Collection/Analysis

13. Clarifying value preference
14. Comparing preference and performance data
15. Item sampling and person sampling
16. Designs for formative evaluation
17. Designs for summative evaluation
18. Appropriate units for data analysis
19. Estimation procedures
20. Making decisions in a cost/effectiveness context

IMPLEMENTATION NEEDS:

The guidebook references key resource materials which are necessary to the effective use of the guidelines. With these or similar resource materials in hand, the evaluator has a comprehensive set of steps for the design of both a formative or summative project evaluation.

SPECIAL FEATURES:

The guidebook is short and to the point, is inexpensive, and is unusually complete.

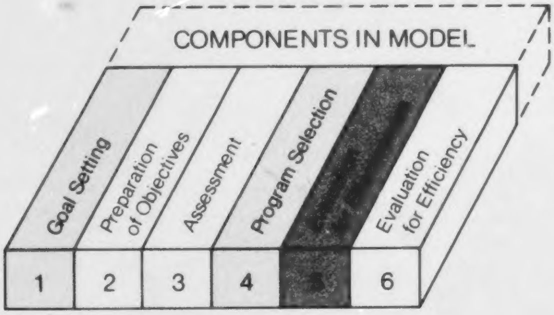
Evaulation Workshop I
Participant's Notebook: An Orientation

Developer:
Center for the Study of
Evaluation (CSE)
University of California
Los Angeles, California
Marvin C. Alkin, Director

Source:
CTB/McGraw-Hill
1221 Ave. of the Americas
New York, New York 10020
(609) 448-1700

Cost:
$65 per person;
$40 for leader's manual
in a Workshop Setting

Copyright:
1973



OVERVIEW:

School representatives participate in a two-day training workshop which introduces them to a five-step evaluation model in educational planning. Using a hypothetical school district and its problems, the program takes educators through simulated activities focusing on: 1) needs assessment; 2) program planning; 3) implementation evaluation; 4) progress evaluation; and 5) outcome evaluation. Each member receives a copy of The Participant's Notebook, a resource bank in itself. It is complete with guidelines, review sheets, outlined steps, sample plans, concise summaries, definitions of terms and evaluation designs to be applied to districts.

The needs assessment procedure can be conducted at any grade, using members of key groups (teachers, board members, community representatives, etc.). A project manager (most likely an administrator) and and evaluator (qualified staff member) have key roles in identifying sources of objectives, selecting participants, computing results, and selecting priority areas. Lists of sources for goals and sampling strategies are included but are optional. Among these is a carefully researched list of CSE goals. The result is a final set of prioritized objectives.

The Program Planning phase contains instructions on how to plan programs effectively, procedures on how to conduct studies, and the advantages and disadvantages of various methods. A list of ways to evaluate programs and all the types of decisions to be made are included. Finally, an outline shows how to put together the outcome evaluation report.

PROCEDURES:*

1. Project director and staff prepare a list of 50-150 school goals (hereafter called objectives).
2. Participants are selected. The type and number will depend upon the size and importance of the project. Sampling and weighing procedures are provided.
3. Using a five-point rating scale, participants rank objectives as to their importance.
4. Using the results of this rating and recommended criteria, the director and project staff select most important objectives.
5. Levels of expected performance are set.
6. Project evaluator collects and analyzes test results.
7. Using these results with an included priority rating table, a list of most important objectives is identified.

IMPLEMENTATION NEEDS:

Use of the model is centered around a two-day training workshop conducted by CTB/McGraw-Hill and is available as such. Participants are charged $65 each and the leader's manual costs $40.

Implementing a program like this on a district level will require at least a project director, an evaluator, some project staff and clerical help. The size and scope of the project will determine costs and time commitment. While a modest needs assessment program can take three months, other steps (e.g. program planning) will take considerably longer.

SPECIAL FEATURES:

The manual contains:

... clearly-stated procedures and job responsibilities.

... a comprehensive five-step model showing the way from establishing goals, through setting programs, to evaluating new programs.

... alternatives presented with advantages and disadvantages of each.

... adaptability to various levels of educational needs (e.g. special program, district-wide curricular, etc.)

*These procedures list only the steps for the needs assessment phase of the model.

Activity 2. Specify information requirements and management needs in a technique identified as domain analysis is defined for the purpose of focusing the direction of the evaluation.

Activity 3. Formulate conceptual framework for evaluation - the conceptual framework is the philosophy or approach which guides the evaluation effort.

Activity 4. Specify evaluation questions of interest - this process generates a well-defined list of evaluation questions which determine the scope and quality of the evaluation effort.

Activity 5. Specify data base structure and contents - the data base is the central source for feedback and evaluative information about the project and is dependent upon the number of data elements involved.

Activity 6. Select instrumentation - an evaluation instrument is any procedure by which information is gathered and recorded.

Activity 7. Specify population selection procedures - this activity involves the selection of an appropriate sampling plan to answer each evaluation question.

Activity 8. Specify data analysis technique - analysis techniques are divided into qualitative techniques and quantitative techniques.

Activity 9. Specify data collection and reduction procedures - utilizing the list of instruments developed in Activity 6, a decision is made relative to how often and when each instrument will be administered.

Activity 10. Specify reporting requirements and procedures - the primary purpose of evaluation reports is to provide an information base for decision makers.

Activity 11. Identify major assumptions and constraints - in completing this activity the evaluation team should identify any complications which have acted as limitations on the design as well as a statement about major assumptions.

Activity 12. Define support requirements - all materials and any service supplied by an individual or agency other than the evaluation team is considered support.

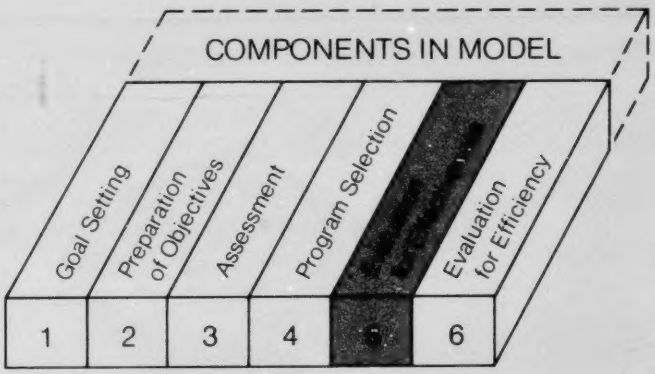
An Overview of Information - based Evaluation: A Design Procedure

Developer:
A. Jackson Stenner

Source:
IBEX
2526 Ervin Road
Durham, N.C. 27705

Cost:
$3.50 (paperback)

Copyright:
1974


COMPONENTS IN MODEL
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OVERVIEW:

This book is the first in a series on information based evaluation. The series was prompted by the realization that most evaluation information is of little value to those individuals who both desire and require it. This series is designed to provide a practical approach to designing and implementing evaluations. The underlying principle is that the purpose of evaluation is to provide useful information to individuals requiring it. The series has been designed for three primary target audiences:

1) the State Department of Education
2) the Program Evaluation team, and
3) information users at all levels

PROCEDURES:

The evaluation design procedure is described under fifteen (15) activities as follows:

Activity 1. Review program design, objectives, and rationale - this activity requires interaction between the program's staff and the evaluation team in addition to a thorough review of the project proposal or properties.

Activity 13. Develop schedule of evaluation activities - a schedule of evaluation activities is needed for effective planning and quality control once the evaluation is operational.

Activity 14. List budget requirements - budget development involves identifying the needed staff, materials, services and facilities and assigning a dollar cost to them.

Activity 15. Develop management plan - the management plan details the evaluation staff assignments, internal reporting and conference schedule, general policies and procedures, budget control procedures, etc.

The product of these process stages is a statement about roles and relationships and an organizational chart.

Finally, procedures for preparing the evaluation design document are delineated. The evaluation design document provides the overall scheme for the entire evaluation effort and includes a complete discussion of tasks and considerations composing the evaluation activity. The document includes a series of sections or chapters, each of which describes the product of certain activities in the design flow chart.

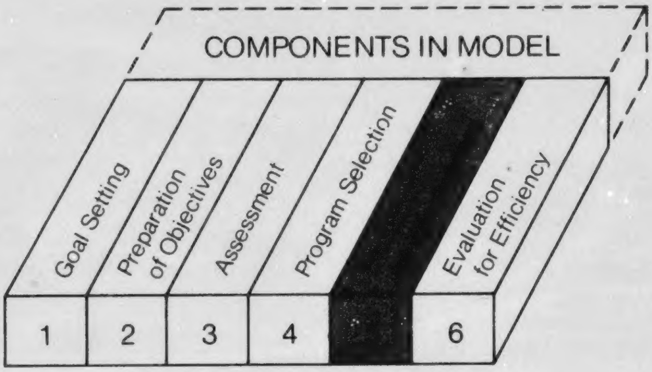
A Scheme for Evaluation and An Organizational Structure of Variables

Developer:
EPIC

Source:
EPIC
Educational Innovators
Press
Warren Plaza West
Hightstown, N.J. 08520

Cost:
Contact Source

Copyright:
1971



OVERVIEW:

The purpose of this model is to assist educators in the decision making process. In a specific sense the publication helps the educator to organize, classify, and process evaluation information according to the EPIC evaluation model. Phase I (Planning) is a description of the EPIC model. It includes a step by step presentation of the essential elements of the model which are: 1) Planning, 2) Implementation, 3) Product, and 4) Recycling. Phase I is viewed as a critical phase of the model development in that it provides for: 1) identification of variables; 2) writing of performance objectives; 3) development of an evaluation design; 4) instituting a monitoring system; and 5) establishing a calendar of events.

Subsequent phases receive little treatment in the model except for sample forms which illustrate their implementation. PART II of the model is an extension of the treatment of Phase I (planning) in that a three dimensional model of variables is presented. These variables include behavioral, institutional, and instructional variables.

Behavioral variables are categorized according to the classic domains of learning (cognitive, effective and psychomotor). Instructional variables are 1) organization, 2) content,

3) method, 4) facilities, and 5) cost. Institutional variables include all people in the system from students through families and other publics.

PROCEDURES:

The variable model is an important concept to the total model because performance objectives are formed through the intersection of any set of variables and are completed by adding a measurement technique, a time constraint, and a proficiency level.

IMPLEMENTATION NEEDS:

The model is suitable for individuals at all levels within the educational system and would serve as a good orientation, overview, or first look in the study of a systems approach to program evaluation. No particular implementation materials or resources are required beyond the model itself. Each section of the model provides a simple review test which provides the reader with a check on his understanding of the model.

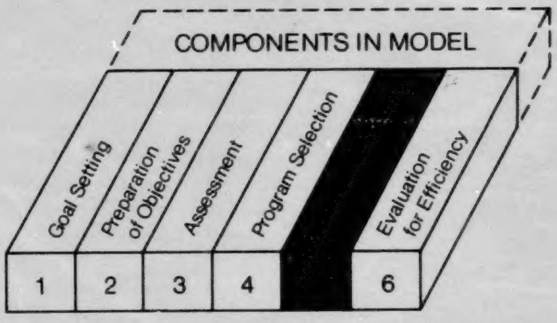
School Evaluation Criteria:
Elementary, Jr. High/Middle, Senior High

Developer:
National Study of School
Evaluation

Source:
National Study of School
Evaluation, 2201 Wilson
Blvd., Arlington, Virginia
22201

Cost:
$6.00 (paperbound)
$7.50 (clothbound)
per manual
Separate sections of the
manual may be purchased for
.40 per section.

Copyright:
1973



OVERVIEW:

The purpose of the Manuals (Elementary, Jr. High/Middle, High School) is to describe the organization of the School Evaluative Criteria and to provide directions for its use in the evaluation process. Guidelines for conducting the self-evaluation by individual schools and the evaluation by a visiting committee are presented with the understanding that procedures may vary somewhat from state to state and region to region.

The Study has developed a proved way of recognizing that schools which are quite different may be equally good. This type of evaluation is based on the principle that a school should be evaluated in terms of what it is striving to accomplish (its philosophy and objectives) and according to the extent to which it is meeting the needs of the students enrolled and of the community it serves. The philosophy and objectives must, of course, be acceptable to some agency (a community, an accrediting association, a state department of education, a board of trustees, a religious organization) if the evaluation based upon such philosophy and objectives is to be recognized beyond the confines of the school.

The evaluations resulting from the use of materials and procedures recommended by the National Study of Secondary School Evaluation may be considered as rations of accomplishment where the quality and nature of work done in a school are related to what should be done in order to satisfy the philosophy and objectives of the school and the needs of the youth who are or should be served by the school.

PROCEDURE:

The complete evaluation of a school as recommended by the National Study of School Evaluation is a three-phase process.

Phase One:
A self-evaluation carried out by the faculty of the individual school. This step usually requires a minimum of one year. The procedure is described in detail in the section, "Conducting the Self-Evaluation."

Phase Two:
An evaluation of the school's progress by a visiting committee. A section "The Visiting Committee" contains more information.

Phase Three:
The school's consideration and follow-up of the findings of the evaluation. This process is dealt with in the section, "Suggested Activities Following the Evaluation."

The National Study of School Evaluation believes that schools which are quite different may be equally good. This belief involves the basic principle that a school shall be evaluated in terms of what it is striving to accomplish. For this reason it is essential that a school faculty carefully consider its purposes and beliefs about the nature of a good educational program for its own particular students. On such a developed statement of beliefs, the school's program is planned, carried out, and evaluated by a visiting committee. Thus the school's objectives become the yardstick by which the visiting committee measures the school's progress toward its own goals.

The National Study of School Evaluation does not attempt to determine the standards by which a school is evaluated. Nevertheless, if the evaluation is to be recognized beyond the confines of the school, the philosophy and objectives must be acceptable to some outside agency. This acceptance might be by the community, the state department of education, or a regional accrediting association. It is entirely possible that the school's statement of philosophy and objectives would be acceptable to the three types of agencies named.

SPECIAL FEATURES:

Additionally, The National Study of School Evaluation publishes Evaluation Guidelines for Multicultural/Multiracial Education, to be used primarily by secondary schools in evaluating its commitment to titular issues. The three pivotal points of this evaluation of multicultural/multiracial education are: 1) the characteristics of the school and community, 2) the school's general philosophy and objectives, and 3) the specific commitments the school has made to educating its young people for a pluralistic society.

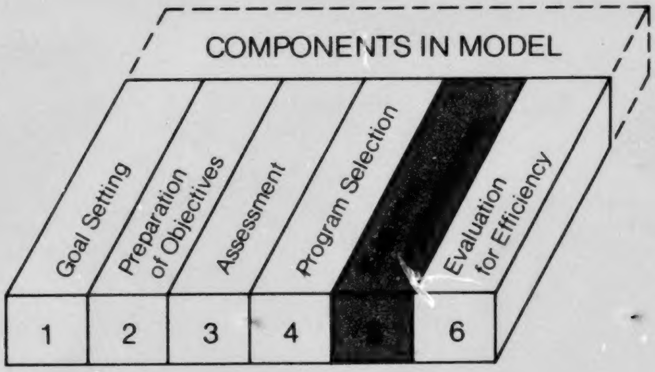
School Evaluation Kit

Developers:
Michael D. Marvin
Merrill Jean Bailey

Source:
Research for Better
Schools Inc.
1700 Market Street
Philadelphia, Penna.

Cost:
Contact Source

Copyright:
No (1973)



OVERVIEW:

This model is not an evaluation model per se but is an evaluation design training model for use with teachers, supervisors, and administrators. Materials are sequentially organized according to six major evaluation tasks: 1) Purpose of Evaluation; 2) Selection of Evaluation Method; 3) Collection of Data; 4) Reduction of Data; 4) Recommendations; 6) Development of Future Plans. The model provides for group or individual experiences with each design task. Test materials are integrated throughout the model and serve as a self testing process with respect to comprehension and understanding of the materials. A reading of the overview is sufficient to obtain an understanding of the model construction and the relationship among the six major components. Each component is further developed through a series of tasks under each for the six major areas. Response forms and worksheets for these tasks provide a source of data on progress in working through the model. The introduction of variables in the task development is planned and sequenced. Those not familiar with systems techniques will find this approach very useful.

IMPLEMENTATION NEEDS:

A section for the "project manager" suggests that there is a need for a coordination of imput in group efforts with the model.

It is further suggested that selected topics, such as choosing evaluation methods, may require consultant help. In general, however, the model may be used by a group or an individual successfully. The self corrective devices, in the form of application tasks as test material, assist in the proper use of the model.

The model need not be used in its complete form. Individuals or groups may extract selected tasks from the model for training purposes on any of the six major tasks.

SPECIAL FEATURES:

Sample materials in the appendix illustrate the use of the model with various areas of the Individually Prescribed Instruction (IPI) programs. Also, additional resources and evaluation model commentary are provided to assist individuals with interpretations of results.

Teacher Competency Development System

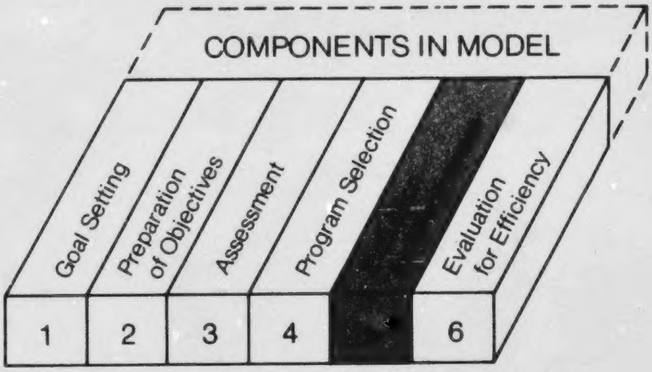
Evaluation .... Booklet #19
Current Concepts of Educational Evaluation. . . . Booklet #20
Modern Measurement Methods .... Booklet #22

Developer:
Unknown

Source:
Prentice-Hall, Inc.
Englewood Cliffs, N.J.

Cost:
Set of booklets plus supportive materials in kit form is $199.95.

Copyright:
Yes, 1974



OVERVIEW:

The purpose of Booklet #19 is to develop in the reader the ability to discuss evaluation in terms of the quality of an instructional sequence on student achievement. This purpose is achieved through five major operations: 1) establishing specific goals, 2) developing a measuring device, 3) preassessing students, 4) implementing an instructional plan, and 5) measuring and interpreting evidence of student achievement.

Primary emphasis is placed on stating objectives so that subsequent tasks become more obvious. Examples of ways of stating objectives are provdided in the booklet. The reader is asked to choose which of the several statements most nearly meets the criterion of observable student behaviors.

In a similar fashion, the other tasks are presented through responses to illustrative examples in the text. A summary mastery test is provided as a final check on understanding of the five major tasks.

The purpose of booklet #20 is to clarify and sharpen the differences in approaches to evaluation tasks. Four stages are considered in the booklet:

1. Measurement vs. Evaluation

2. Formative Evaluation vs. Summative Evaluation
3. Process Criteria vs. Product Criteria
4. Assessment of Merit vs. Decision Making

Each of the above stages is explained in narrative form in the model. The reader is then asked to select examples which are responsive to each stage. The booklet employs a programmed learning technique for all four stages.

After completing the short narrative, the reader should be able to successfully discriminate among examples. Key linking words associated with concepts (Measurement - counting; Evaluation - assessing merit; Formative - improving; Summative - final; Product - extrinsic criteria; Process - intrinsic criteria; Decision making - information; Assessment of merit - value judgments) are helpful to the task of discriminating among the stages.

The purpose of booklet #22 is to develop in the reader the ability to distinguish the differences between criterion-referenced and norm-referenced measurement procedures. The purpose is achieved through a narrative presentation that equates norm-referenced measurement to relative performance in terms of groups and ranking procedures, and criterion-referenced measurement to absolute standards of performance.

The material in the booklet is presented in a programmed learning format in which the reader is called upon to classify items and statements according to definitions provided in the text of the model. A section of the booklet includes semi-technical presentations of test reliability problems and measures of test validity.

IMPLEMENTATION NEEDS:

All three of the booklets (#19, 20, and 22) may be used by individuals in a self-instructional situation. Self-checking items appear throughout each of the texts. A mastery test is provided at the end of each test. The imbedded tasks are sufficient to produce the ability to discriminate between evaluation strategies.

A final test illustrates how successful one has become in making distinctions among purposes of evaluation.

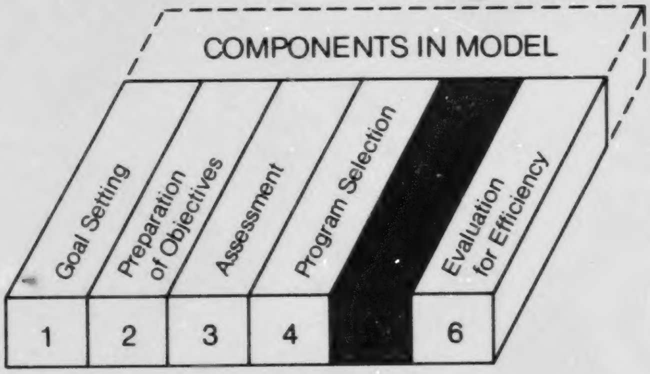
The Use of Experimental Design in Educational Evaluation

Developer:
Daniel L. Stufflebeam

Source:
Journal of Educational
Measurement Volume 8, #4
Winter 1971
National Council on
Measurement in Education
Michigan State University
East Lansing, Mich. 48823

Cost:
$2.50

Copyright:
1971



OVERVIEW:

The purpose of this model is to reduce polarized positions regarding experimental designs vs. other concepts of evaluation. The model is addressed to those who are conversant with evaluation issues and literature.

Basically the model attempts to interface elements of experimental design with elements of Stufflebeam's CIPP evaluation model. The results of the comparison demonstrate that the experimental method has much relevance for product evaluation but relatively little relevance for context or process evaluation.

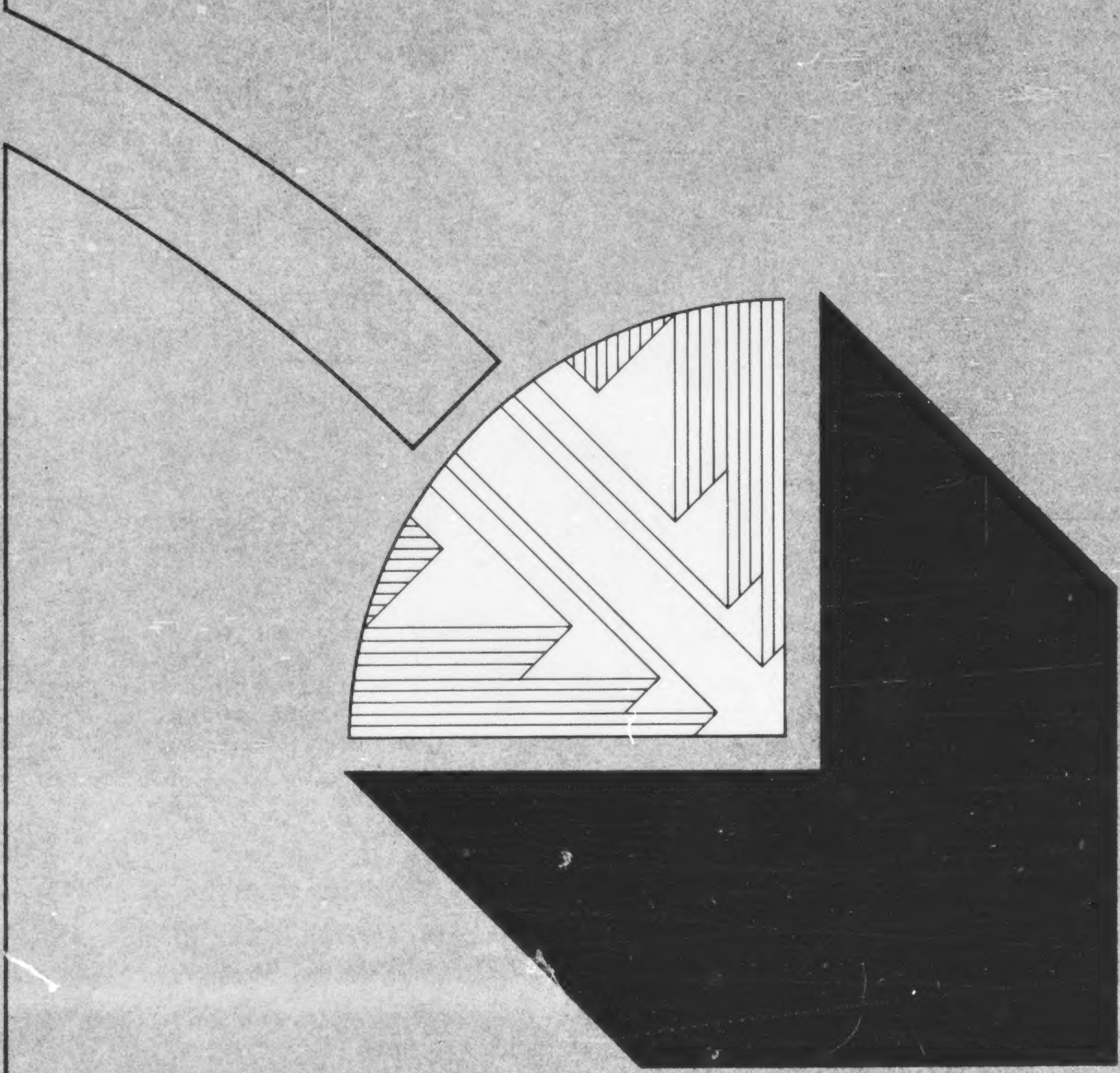
The model presents a schema to increase the utility of experimental designs in the area of product evaluation.

IMPLEMENTATION NEEDS:

The model suggests no implementation strategies beyond the illustrative schema which relates product evaluation to experimental design. However, the material is semi-technical in nature and would require some understanding of the CIPP model and experimental design factors to be implemented.

component 6

program efficiency
models for evaluation



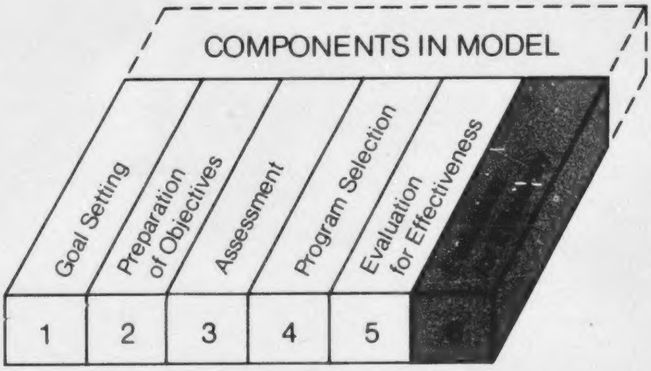
Educational Planning, Programming, Budgeting: A System Approach

Developer:
Harry J. Hartley

Source:
Prentice Hall, Inc.
Englewood Cliffs, N.J.

Cost:
$9.95 (book)

Copyright:
1968



OVERVIEW:

This book represents a pioneering effort in employing the concept of program budgeting. It develops a method for educational planning which illustrates how the human and material resources which are allocated for education can be better utilized to support clearly defined instructional programs. Program budgeting is described as a practical means for focusing on the schools' reasons for existence. Systems analysis, by augmenting national judgment and extending the time horizon in educational planning, is portrayed as a way for educators to direct their future instead of merely reacting to and being controlled by it. The book illustrates budget formats and systems procedures already in use by school districts in New York City, Philadelphia, Sacramento, Memphis, Seattle and Florida's Dade County.

PROCEDURE:

Because a management information system is essential to the implementation and maintenance of a PPBS, the author identified the following phases for developing a MIS:

Phase I: System Specifications

1. Design program - classification system
2. Prepare systems design and specifications
3. Specify program structure, objectives, activities, resources
4. Identify options, multiyear plans and teacher pupil participation

Phase II: The Administrative Plan

1. Design central planning and fiscal management procedures
2. Establish priorities; construct planning calendars
3. Develop a reporting and budgeting system
4. Initiate pilot project; prepare instructions for supervision and performance control

Phase III: The Data Base

1. Install data processing
2. Identify parameters; construct pupil data blank
3. Incorporate behavioral research models
4. Apply cost effectiveness and other analytical procedures

Phase IV: Review and Revision of MIS

1. Complete debugging of pilot project
2. Develop evaluative instruments and performance indicators
3. Propose new objectives, plans, and priorities
4. Promote participatory planning and evaluation

The management information system can be expanded over the years after the following basic system components have been provided:

1. Data-collection devices and processing procedures
2. PPBS procedures and skilled personnel
3. Utilization and documentation procedures
4. Computer similation models and computer programs (if possible)

IMPLEMENTATION:

PPBS requires deliberate effort and planned implementation. Whereas leadership must be supplied by the chief school officer, the task of implementing PPBS is apt to be the responsibility of several staff. In all but the smallest of school districts, this would probably call for the creation of new positions. Consultants may need to be used, but their expertise will need to be assimilated by regular staff as these activities become a part of the system.

It is the responsibility of the superintendent to manage a public information system that informs the administrators, teachers, and the general public about the merits of PPBS. Hartley states, "The superintendent might stress the advantages for each role as follows: (1) board of education--a better basis for making policy, assessing performance, determining future year costs of present decisions, and reporting budgets to the public; (2) administrators--a comprehensive executive tool for engaging in long-range planning, utilizing systems analysis procedures in defining objectives, weighing alternatives, evaluating programs, and allocating human and material resources; (3) teachers--a means of involving instructional personnel in policy formulation, curricular program design, long-range planning, and providing greater assistance to teachers with data processing and other supportive services; and (4) general public--furnishing a means by which the schools report their expenditures on the basis of programs and offering a framework for transforming public preferences first into public school policy and then into school programs."

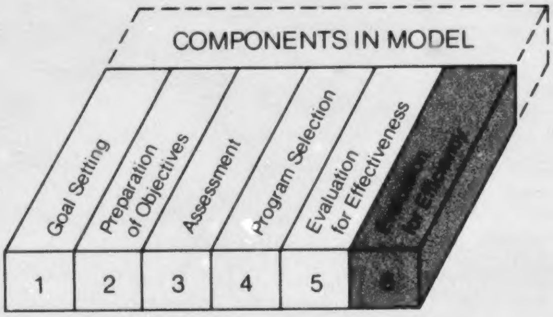
Educational Resources Management System

Developer:
William H. Curtis,
Project Director, et al

Source:
Research Corp. of the Assn
of School Business Off.,
Office, Dir. of Research
2424 W. Lawrence Avenue
Chicago, Illinois 60625
Library of Congress
Cat. Card #77-187356

Cost:
$7.45
Quantity discounts:
6-15 copies, 10%
16 or more, 20%

Copyright:
1971



OVERVIEW:

This book represents the results of an extensive project completed by the Association of School Business Officials (ASBO) under a grant from the U.S Office of Education. Although the Dade County, Florida, school system served as a partner to develop an operational design, seven other school systems served as pilot districts and furnished information for the project. The book describes a system designed to support educational decision-making. It is called the Educational Resources Management System (ERMS).

The primary purpose of the project was to develop a conceptual design for an integrated system of planning, programming, budgeting and evaluation (PPBES) which is appropriate for local school districts. The ERM System has been developed with the knowledge that school district needs exceed the resources normally available to satisfy these needs. Therefore, a system of logical choices is essential for effective administration of school districts. For every identifiable objective of a school district usually there are several means for attaining that objective. School personnel who are capable of assessing the relative merits of two or more plans for resolving a given problem determine which means are to be used. Consideration is given to the constraints of the resources available. The decisions of resource management, therefore, become functions of resources available and anticipated objectives, each with respect to time.

PROCEDURES:

The individual components of the ERM System are not new. The techniques of long-range planning to include goal determination, effective resource allocation, analysis of alternatives and evaluation of results have been used for some time in business and industry. What is new about an ERM System is the way these components are integrated into a system and the level of sophistication at which they are used.

The processes, though simply stated, are complex in nature. The following represent the major steps to be taken:

1. An assessment of needs
2. The examination of existing goals
3. The establishment of a set of priorities
4. The tentative determination of major programs
5. The careful analysis of alternatives
6. A selection of alternatives
7. The preparation of a program and financial plan
8. The development of a comprehensive plan for evaluation

Cost effectiveness analysis is a tool that can assist the planner in relating the resources required by an educational program to its effectiveness as measured by pupil achievement. For the purpose of analysis, schools are viewed as "systems." From this analytical viewpoint, an educational system is perceived as being an arrangement of elements (such as teachers, classrooms, and the like) and processes (such as instruction and counseling) that combine to produce student learning. There are factors within the system that influence the relationships between the resources used by the system and the student learning that results; there are also factors external to the system that have impacts on these relationships. Cost-effectiveness is described as a technique for comparing programs and may be used:

... to help assess the relative worth of several innovative programs with the same educational outcome (such as improvement in reading achievement).

... to help assess the relative worth of the same program for different student populations (such as those with differing socio-economic backgrounds) or in different school settings.

··· to determine whether a single program is becoming more or less effective as time passes, so that steps may be taken to improve it, if necessary.

IMPLEMENTATION:

Implementation requires that school officials work with citizens, members of the professional staff, students and other personnel with specialized talents in a variety of organizational patterns which have been developed as planning activiies. The closer decisions are associated with the people affected and the more intimately the people are involved, the more critical the political climate becomes. School activities are a natural part of this climate. Nevertheless, the political pressures generated in this environment do not present insurmountable obstacles to planning. An important responsibility of school administrators is to maintain the delicate balance between analytical and political forces for extended periods of time. The various political forces bearing on decision-making can be influenced by the facts illuminated through analysis. Planning, as conceived in an ERM System, strengthens the influence of school officials and makes it possible for them to meet these responsibilities.

Members of the planning task force are selected for a contribution that can be made to the planning needs of the community. Participants include lay citizens, educators, and school business officials as well as instructional personnel and students.

School officials will wish to involve a variety of people in the planning process through a task force or committee.

Consultants may be necessary for the implementation of particular aspects of a PPBS project.

SPECIAL FEATURES:

The book concludes with four appendices entitled:

A. The role of Analysis in PPBS (ERM System)
B. Cost/Effectiveness Application (Milwaukee)
C. The introduction of PPBES Methodology in a large school
D. Pilot District Studies

Operational PPBS for Education –

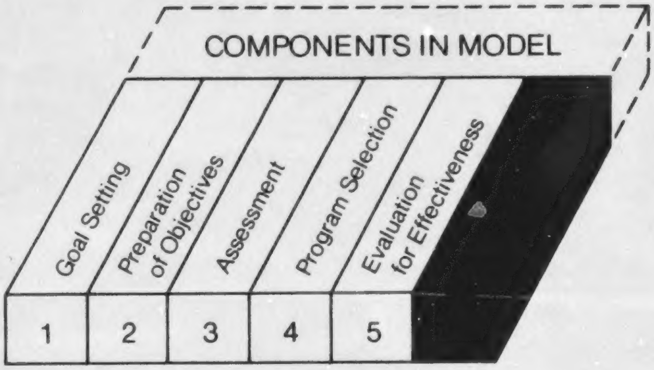
A Practical Approach to Effective Decision Making

Developers:
Robert A. Alioto
J. R. Jungherr

Source:
Harper & Row, Pub.,
49 E. 33rd St.,
New York 10016
Lib. of Congress Cat.
Card. Std. #70-174519.
Book No. 06-040203-2

Cost:
$12.95

Copyright:
1971



OVERVIEW:

The basic purpose of this book is to provide a practical approach to the introduction and installation of a Program Planning and Budgeting system. To quote Harry J. Hartley, author of Educational Planning - Programming - Budgeting, "(this book) reveals how to do PPBS in an applied sense. Until now, the literature on PPBS has emphasized conceptual-expository aspects, but has overlooked the operational-demonstrative facets. (The writers) understood the challenge to relate the theoretical properties of PPBS to the contemporary practice of education. They have demonstrated how decisional technologies associated with the systems approach can be used to humanize learning and improve educational services in an efficient manner." The PPBS is stated as being simplistic. It can be summarized accordingly: What do you want to achieve? How can you achieve it? When will you achieve it? How will you know that you have achieved it?

PROCEDURES:

The book describes the components that are necessary for an operationalized PPB System; it suggests methods of achieving those components; and it attempts to illustrate some of the risks and problems involved in the developmental process. It provides a comprehensive example, through a procedures manual and a display document, of how to collect, analyze and display the necessary information for a PPB System. Both the manual and the document represent an initial effort and should not be construed as ideal models. They may serve, however, as a starting point for possible modification to meet local district needs for implementing PPBS. The book contains representative samples of various forms and other materials that have been developed by school districts in order to facilitate the implementation of a PPB System.

IMPLEMENTATION NEEDS

The reader must recognize that the techniques, format, procedures and forms described in this book represent suggestions that should serve as a basis for modification, adaptation, or complete redevelopment to meet a particular school district's needs. A consistent attempt has been made to provide alternative starting points, methods and strategies for the installation of a PPB System.

There are several common threads which run through this book. These include, first, the stressing of wide involvement of staff, community, and board members throughout the entire installation process. The second emphasis is that districts should begin with the information and procedures that already exist. Most school districts are presently involved to some degree in one or more of the components of a PPB System; and by capitalizing on this involvement, the transition to a PPB System can be more readily affected. Finally, the book attempts to alert practitioners to the necessity of being realistic in their expectations during the installation of a PPB System. The book recognizes that PPBS is new to education and, therefore, its applications have not been fully explored. Further, it recognizes that there are a number of risks and problems associated with the PPBS approach. However, the potential payoff in terms of benefits to the students and the school district makes the adoption of PPBS imperative.

The factors related to installing PPBS are summarized as follows: In most school systems, the existing workload of the staff encompasses the components necessary for a complete PPBS. By capitalizing on the work already being accomplished and through the reallocation of tasks currently being completed by the staff, PPBS may be installed at little or no additional cost to the school district. Three to five years has been estimated as the time necessary for initial installation of the system.

The introduction of PPBS might best be accomplished by a task team representing a broad cross-section of the staff and community. The task team must assume responsibility for training the staff, analyzing resources available for the initiation of the system, and preparing the various plans of action recommended for an orderly installation of PPBS. Further, the task team must delegate responsibility for the completion of specific activities to various subcommittees. Finally, the task team must select the initial component for the actual installation of the system. The task team must analyze the alternative starting points in terms of the resources it has available and the initial benefit it wishes to achieve. However, the program structure component should receive major consideration because it provides a basic framework for the development of the remaining components.

SPECIAL FEATURES:

Helpful illustrative PPBS forms and sample documents are included.

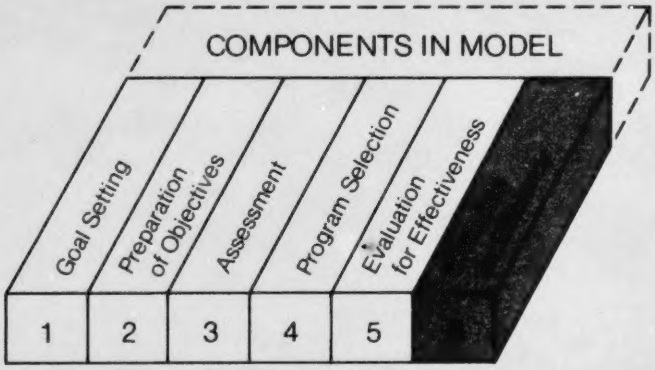
Planning, Programming and Budgeting
Action Folio 30

Developers:
James Singer
George F. Wallace, ed.

Source:
Croft Educational Services
100 Garfield Avenue
New London, Ct. 06320

Cost:
Contact source.

Copyright:
1971


COMPONENTS IN MODEL
Goal Setting
Preparation of Objectives
Assessment
Program Selection
Evaluation for Effectiveness
1
2
3
4
5

OVERVIEW:

The material is presented in a folio consisting of three parts. Part A presents an overview of PPB, including a brief history, its advantages and disadvantages and a selected bibliography on PPB and school administration, (4 pages + 3 exhibits). Part B attempts to bridge the "theory to practice" gap PPB discussions sometimes present. It covers cost projections, evaluation, the multiyear plan, and other key PPB concepts in practical, easy to understand language, (4 pages + 4 exhibits). Part C attempts to explain the planning and analysis stages of initiating a PPB and gives specific examples of working PPB systems (4 pages + 2 exhibits).

PROCEDURES:

The materials state that PPB will:

- Provide an overall structure for programs and costs
- Suggest alternative programs to meet the goals of the educational system
- Force realistic long-range planning on program and budgetary personnel
- Provide comprehensive information for making decisions

IMPLEMENTATION:

In recognition of the need for staff training, the materials list the following as a logical sequence of steps in planning and implementing a PPB system.

1) Decide what resources--staff and information--will be required.
2) Establish a central staff and analytical unit.
3) Develop necessary skills.
4) Train, inform, and otherwise involve administrative personnel in the process.
5) Set up specific lines of communication and authority between the PPB central station and analytical unit and other staff offices.
6) Define and structure goals, programs and activities.
7) Define the costs for the activities and project them for several years into the future.
8) Determine the kind of information needed to measure effectiveness and evaluate progress.
9) Design and implement an information and data collection system.
10) Develop procedures for modifying programs especially at the operating level.
11) Begin again, recycle the process, refine it, bring the information up to date.

A PPB plan illustrating the procedures used by Dade County, Florida, is presented as one of the exhibits in Part C.

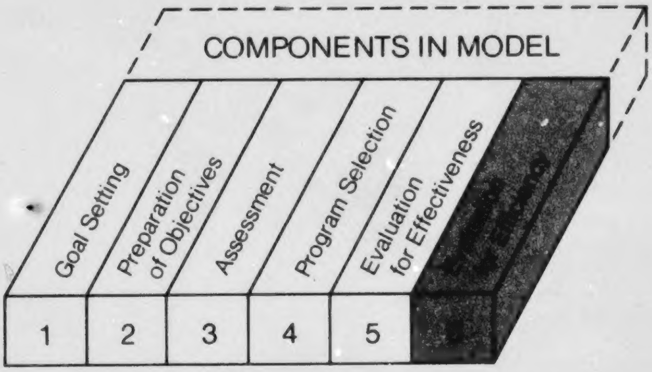
PPBS and the School — New System Promotes Efficiency, Accountability

Developer:
Thomas F. Koerner

Source:
National School Public
Relations Association
1801 N. Moore Street
Arlington, Va. 22209

Cost:
$4.75

Copyright:
Yes, 1972



OVERVIEW:

What PPBS is all about--how it's used, what it can provide, where its strengths and weaknesses lie and, most of all, why use it at all--is the purpose of this Special Report. The materials provide the reader with a brief history of the planning, programming, budgeting system, define system, cite a rationale for systems planning, and pursuant to the plea from the "American School Board Journal" (8/70) has "junked the jargon."

PROCEDURES:

The material is presented under the assumption that there is no single proper place to being PPBS. A school district may begin in either of three major areas--planning, programming or budgeting. However, the basic steps of PPBS are cited as:

(1) Develop broad boals and objectives
(2) Design a program structure
(3) Define objectives for each program--including the means for measuring or indicating program effectiveness
(4) Identify or design alternative approaches for attaining program objectives
(5) Make cost-effectiveness analyses of the alternative approaches for each program
(6) Select the best approach for attaining program objectives and allocate funds
(7) Evaluate the results of operating each program and provide feedback to the planning process

IMPLEMENTATION:

The materials emphasize the importance of involving the entire staff and even the community as an "absolutely necessary" preliminary step in implementing PPBS. The contributory roles of the teacher, building principal, district curriculum coordinator, central office staff, superintendent, a citizens advisory committee, and the board of education are briefly defined. Decision matrices are provided for the areas of 1) planning system responsibilities; 2) programming system responsibilities; 3) evaluating system responsibilities and 4) budgeting responsibilities. Each matrix lists the major activities for that level of responsibility.

SPECIAL FEATURES:

There are illustrations of state legislation (Indiana, California) specifically designed to assist school districts in implementing PPBS. Also included are a PPBS case study (Dade County, Florida), staff development recommendations, a comparison between a traditional line item budget and a program budget under PPBS, and a list of school districts implementing PPBS (1972).

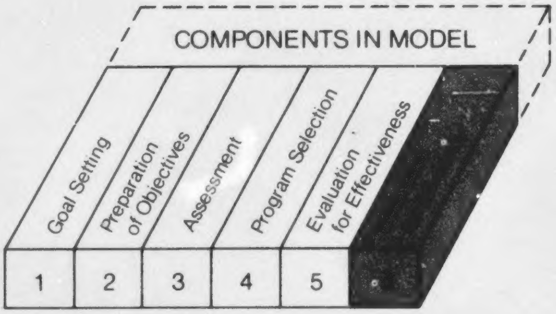
Program Budgeting for New Jersey School Districts: "Program Budget Guide"

Developer:
State of New Jersey
Dept. of Education

Source:
State of New Jersey
Dept. of Education
Division of Administration
and Finance
225 W. State Street
Trenton, N. J. 08625

Cost:
No charge to school districts in New Jersey

Copyright:
No



OVERVIEW:

The Program Budget Guide provides the reader with a description of program budgeting and outlines an implementation process that has been developed and utilized in many school districts around the country, and, more importantly, was successfully implemented in New Jersey pilot school districts.

Each major element of program budgeting is contained in a separate chapter so that the reader can easily identify what is required to implement that element. A chapter begins with a description of the element, its purpose and any caveats which could affect its implementation in the district. This is followed by a step-by-step enumeration of the individual tasks a school district should undertake to bring about the desired results. Within this step-by-step enumeration there are certain tasks, which, while not required for implementing this process, should be considered by the district. These tasks have been designated as "optional." In addition, suggested blank forms, as well as materials completed by the pilot school districts, are included to assist the reader in implementing the process.

Where needed, a graphic display (flow diagram) of a process is included to reinforce the reader's understanding of the program budgeting process.

As the Guide is read, the reader will note that it does not mandate specific organizational or procedural patterns in implementing program budgeting. It does, however, specify certain guidelines and reporting requirements which a district must follow to ensure statewide uniformity for state aid distribution and expenditure comparability.

PROCEDURES:

This document defines a management process that allows school personnel responsible for managing and budgeting the programs (hereafter referred to as program managers) to define goals for their programs and delineate how the programs are expected to achieve desired results. From this, the program managers identify the resources, both personnel and non-personnel, required to operate the programs. This type of involvement and participation by school personnel enhances support for the program budget and fosters a more analytical approach to the budgeting process. Further, it provides numerous opportunities for community involvement and support. Suggesting and reviewing needs and problems of the district is one instance. Determining the best way to present the program budget to the community is another.

A district implementing program budgeting must first identify its programs (e.g., mathematics, trade and industrial occupation, library, food services) and then display them graphically, illustrating the various relationships and interrelationships which exist among the activities. This arrangment of programs, commonly referred to as a program structure, provides the basic framework for all program planning, budgeting, and reporting in a district.

Once a district designs its program structure, it must decide the groupings of activities for which budgets will be prepared as well as who will be responsible for developing the budgets and managing programs.

Since program budgeting is a change from the traditional functional/object method of budgeting and many program managers are preparing program budgets for the first time, a reference point is needed specifying what the programs are presently costing. A district can provide this guidance by recasting its current year's approved State formatted functional/object budget into a program form consistent with the district's program structure. A district is required to complete this recasting only in the first year of a program budget implementation. In succeeding years the district can refer to the prior year's program budget.

If district personnel are to budget--and indeed plan by program--they need more than a recast budget to guide them in the program budgeting process; they need some indication of the needs, problems and constraints of the district for the coming year. The Superintendent, with whatever counsel he desires, should define these budget guidelines for the budget year. Needs and problems once identified are then placed in priority order based on their importance to the district. The guidelines are then promulgated to the program managers to provide them with insight into conditions which should affect the district during the budget year.

Another piece of information needed by program managers to analyze program and resource requirements is enrollment projections.

While budget preparation methodology will differ based on each district's management style, some formalization within the district is required in program budgeting to foster a thorough and complete thinking and obtain the kinds of information desired. Three basic forms--a program plan form, program change proposal and program budget worksheet--are used by a district in developing a program budget. Program managers are asked to identify program goal(s), document desired program changes including the costs and benefits of alternative approaches, and prepare worksheets summarizing the resource requirements, including personnel, for the budget year. Then, based again on a district's management style and organizational structure, the program budgets are studied, reviewed and compiled for presentation to the Board and community.

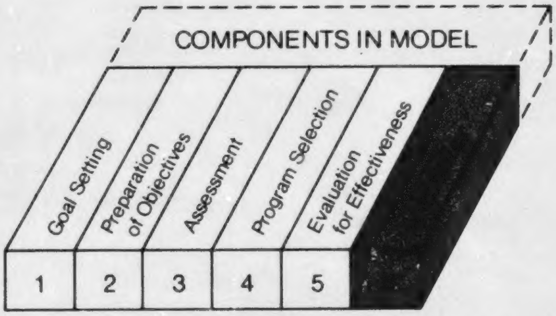
Program Budgeting for School District Planning

Developers:
Sue A. Haggart (Editor)
The Rand Corporation

Source:
Educational Tech. Pub.
Englewood Cliffs, N. J.
07632
Library of Congress
CC #76-170027, Int'l
Std. #0-87778-0269

Cost:
$9.95

Copyright:
1972



OVERVIEW:

This book addresses the question, "What is program budgeting?". It explores the potential of program budgeting as a means to more effective allocation of educational resources at the school level. Program budgeting includes that collection of concepts and techniques necessary to assist the educational planner in the determination of how well resources are presently being used and for the selection of preferred ways to use resources in the future. Program budgeting--basically a resource allocation system--stresses the setting of objectives, grouping activities into programs to meet the objectives, identifying the resources required by the programs, and measuring the effectiveness of the programs in meeting the objectives. This means that alternative programs are evaluated in terms of their impact on present programs and in terms of their future consequences. It is further stated that this PPBS evaluation makes demands on all levels of the decision making hierarchy of the school district. The nature and extent of these demands are discussed within the conceptual framework of program budgeting.

PROCEDURES:

The major portion of the text is devoted to describing the use of program budgeting to provide a framework for collecting, organizing, and analyzing information about a school. Initially, the conceptual framework of program budgeting is described in terms of the activities, the components, and the documentation to the program budgeting process. The framework serves as a foundation for further development of the program budgeting process. The structural aspect of program budgeting is aligned with the concepts and problems of developing a program structure as the means for relating activities and objectives. The program's structure is used in the comparison of the traditional budget of a school district to the program budget to illustrate how differences in the budget reflect basic differences in the approach to planning and also to illustrate the technique of "crosswalk."

Special prominence is given to the analytical aspect of program budgeting. The purpose of this analysis is to provide the capability of systematically examining the consequences of decisions; the product of analysis is information in the form of the projected cost and the benefit of proposed courses of action. The school district is viewed as a system; and in this way the variables that play a part in defining an educational program can be more consistently and more completely identified. By encouraging the use of systematic techniques for planning, program budgeting should lead to the expansion and improvement of ways to relate the quantity and quality of an educational project to the resources used to create it. The crux of the problem is not to develop new measures, but rather to assemble information that is scattered throughout the system in such a way that better use can be made of it. With this in mind, the discussion draws heavily on dimensions of effectiveness that educational planners are currently using. Additionally, a discussion of the activity areas involved in designing, implementing and operating a program budgeting system is provided. The following topics are discussed:

- Program budgeting for improved school district planning
- Development of a program structure
- Program budget and the traditional budget (crosswalking)
- Modeling resource utilization in a school district
- Cost models and analysis of costs
- Analysis of effectiveness
- Evaluating alternatives in school district planning
- Analysis of an educational program
- Evaluating innovative educational programs
- Use of program budgeting in decision making
- Consideration in developing a program budgeting system

IMPLEMENTATION:

The book emphasizes that the development of a program budgeting system for school district planning demands the active participation of almost all district personnel. This means participation by all levels within all functional areas--educational research, curriculum development, testing, education, instruction, counseling, personnel selection, and teacher training; not just administration, finance, and budget. Problems related to implementation are categorized into four basic areas:

1. Data-related problems,
2. People-related problems,
3. The area of system effectiveness, and
4. The cost of the system.

The design for implementation defines needs in the activity areas of educational system inventory (context), development of the structural aspect, and development of the analytical aspect.

SPECIAL FEATURES:

The text is supplemented with an appendix that contains the following:

Allocation of Students Among Groups - A mathematical procedure that establishes internal heterogenity in classrooms while maintaining a small difference between classrooms.

Evaluation as Feedback in the Program Development Cycle - Evaluation is viewed as a continuous component of the cycle of planning, implementing, observing, and correcting.

Projections of Enrollment - Because program budgeting may call for a different approach in enrollment projection, new techniques may be required. The pros and cons of various projection models are discussed.

Cost Effectiveness Analysis for Educational Planning - Contains a review of what "cost-effectiveness" is and how it fits into the cycle of planning. Cost effectiveness is viewed as a tool to compare programs, hence, a tool to aid decision makers in selecting alternatives.

NOTE:

This text is refinement of an earlier publication (1969), Program Budgeting for School District Planning: Concepts and Applications, by, for the most part, the same authors.

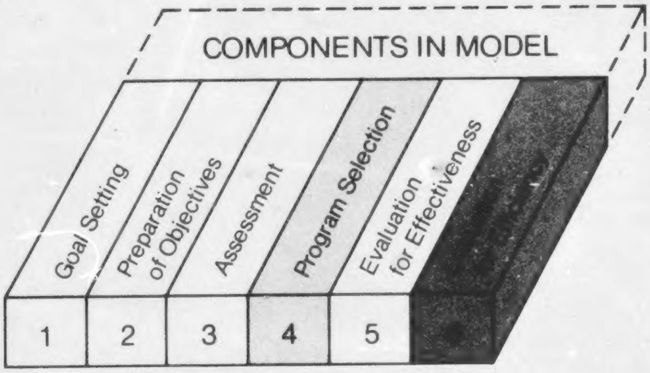
The Resource Approach to Program Cost Analysis

Developers:
Donald L. Elynn
Paul F. Diehemann
Nabeel A. Al-Salam

Source:
RMC Research Corp.
7910 Woodmont Avenue
Bethesda, Maryland 20014

Cost:
Contact source.

Copyright:
No (1974)



OVERVIEW:

The methodology of costing an educational program by identifying the resources it utilizes is presented. All costs are taken into consideration and are placed within the framework of staff, equipment, materials, facilities and services. This paper suggests that this methodology is much stronger than the more traditional budgetary and cost/pupil approach. The paper develops the techniques for allocating the quantity of a school's resources to particular programs and classrooms within the school, considering the sharing of resources. The cost model developed in this paper was designed to complement and support a large-scale evaluation of compensatory reading programs being conducted by the Educational Testing Services (ETS) for the U.S. Office of Education.

PROCEDURES:

Within the contents of the paper it is stated that the most appropriate technique for estimating the cost of individual programs is by determining the actual quantity of all resources (i.e., staff equipment, materials, and facilities) used in a program, and then estimating the cost of these resources. The technique is referred to as the resource approach to program cost analysis. The model recognizes that resources are shared by programs and that an estimate of the sharing must be determined. Included as principal aspects of cost are: 1) total vs. incremental cost, 2) capital and accrual operating costs and, 3) actual vs. standard costs. The resources used in a program are defined by category and include staff, facilities, equipment, material and district centers. For each of the source items within these categories, the program cost model estimates the quantity that is available for the program in each school. Using the unit cost factors for each resource item, it then calculates the total cost of employing the resource for the program.

IMPLEMENTATION:

The proposed cost model demands the use of a number of formulas to calculate the shared allocation of educational resources. Therefore, the cost model is computer based and requires as input a substantial amount of information related to resource allocation. Of course, accurate and comprehensive input data is necessary to achieve accurate and specific output data.

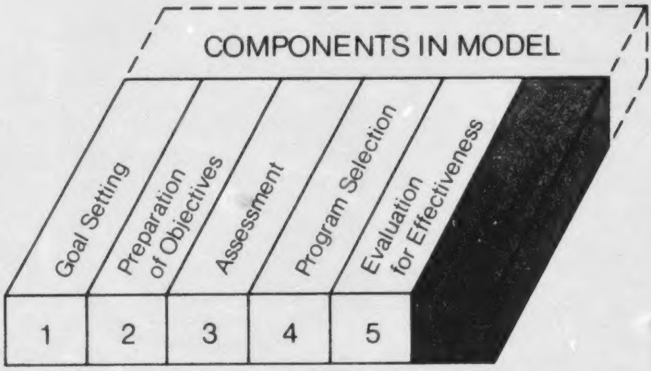
State Educational Records and Reports Series

Developer:
U.S. Office of Education
Staff

Source:
U.S. Government Printing
Office, Division of
Public Documents,
Washington, D.C. 20402

Cost:
Varies

Copyright:
No


COMPONENTS IN MODEL
Goal Setting
Preparation of Objectives
Assessment
Program Selection
Evaluation for Effectiveness
1
2
3
4
5

OVERVIEW:

The State Educational Records and Reports Series contains the following handbooks:

Handbook I	- The Common Care of State Educational Information - 1953
Handbook II	- Financial Accounting - Classifications and Standard Terminology for Local and State School Systems - 1973
Handbook IIB	- Principles of Public School Accounting - 1967
Handbook III	- Property Accounting for Local and State School Systems - 1959
Handbook IV	- Staff Accounting for Local and State School Systems - 1965
Handbook V	- Pupil Accounting for Local and State School Systems - 1964
Handbook VI	- Standard Terminology for Curriculum and Instruction in Local and State School System - 1970
Handbook VII	- The State Education Agency, Standard Terminology and a Guide for Recording and Reporting Information about State Education Agencies - 1971

The purpose of this series is two-fold: the primary purpose is to provide educators with a set of standard procedures; and the secondary purpose is to provide educators with a standard terminology when devising process related to educational administration. The series attempts to develop commonalities between State and local procedures.

PROCEDURES:

Obviously, procedures will vary according to the processes selected, but the handbooks may be viewed as highly detailed, explicit documents. The procedures in each handbook follow a logical, developmental sequence.

IMPLEMENTATION:

The handbook most appropriate for use in establishing a PPBS in a school district would be Handbook II. The chart of accounts in this manual has been structured to enable planners to budget programs, and evaluate the resources, processes, and effectiveness of the various objectives of a school district. The handbook assumes a large amount of prior knowledge on the part of the user. The handbook, therefore, will be most useful to persons who had a thorough understanding of school district accounting procedures.

SPECIAL FEATURES:

A Training Package for Implementation of New Accounting and Budgeting System (Accounting Handbook II Revised) and a "Slide Presentation and Narrative for Overview of New Accounting and Budgeting System, Accounting Handbook II Revised," are available from:

Oregon State Department of Education, Business Systems and Auxiliary Services, Salem, Oregon 97310.

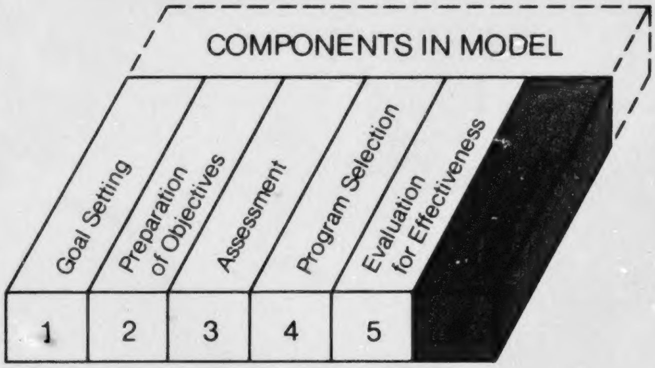
STEP—System for Trenton's Educational Planning

Developers:
Edmond H. Weiss
Jerry Ackerman

Source:
Governmental Studies and Systems, Inc.
University City Science Center
3401 Market Street
Philadelphia, Pa.

Cost:
Contact Source

Copyright:
No (1971) Volume 1


COMPONENTS IN MODEL
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OVERVIEW:

The purpose of this project was to provide the Board of Education and the Executive Staff with the ability to: 1) Test the educational impact of various allocations of resources to continuing and new projects; 2) Develop plans that are directly related to educational activities; 3) Translate the plans into budgets, strongly supported by realistic estimates of probable educational impact; and 4) Plan far enough into the future (five years) to achieve the program continuity needed to cope successfully with the educational problems of the district.

PROCEDURES:

The project consisted of these basic activities:

1. Develop Procedures for Community Involvement
    a. Design model for citizen participation
    b. Design community opinion study
    c. Process and Analyze data from community study

2. Form an Agency Task Force
    a. Define roles and activities for Technical Task Force
    b. Participate in Task Force meetings

3. Orient, Brief, and Train Staff
    a. Conduct orientations for Technical Task Force
    b. Conduct training for Central Office Staff
    c. Conduct training for Secondary administrators and Department chairmen
    d. Conduct training for Elementary administrators
    e. Develop briefing materials for Board of Education
    f. Provide instructional material for the teaching staff

4. Design System Components
    a. Design Goal-Setting Sub-system
    b. Design Enrollment Forecasting Model and Procedures
    c. Initiate Revenue-forecaster Design
    d. Initiate Cost (Manpower - Resources) Forecaster
    e. Initiate Planning Information System Design
    f. Develop proposed Program Structure, Indicators, Goals, and Objectives
    g. Initiate design of Evaluation-Monitoring Sub-system
    h. Initiate design of project design and cost-benefit analysis procedures

IMPLEMENTATION:

The project emphasized the necessity of proper attitudes toward PPBS. Agreement among participants was sought for the following statements:

1. The effects of education are measureable, or, more specifically, anything a school district sets out to do deliberately can be measured.
2. It is possible to separate discussions of educational ends from discussions of educational means.
3. The future, to some degree, can be "made to happen" the way we want it to.
4. The public is entitled to an explanation of the reasons behind decisions by the schools' policy makers, and, when the public believes the reasons are sound there will be continuing support.
5. The fact that there never seems to be enough money for the schools does not mean that the schools cannot be changed or improved.

The implementation process was centered around the flow of the following elements:

Stage 1) Assessment of current educational costs and benefits, and an updating of all those files necessary for operating the computerized elements in the planning process.

Stage 2) The Assessment data is fed into the "Planning Model," a set of computer programs which manipulate the data and produce forecasts.

Stage 3) The generation of the base case, a five year forecast of what the school district's costs and benefits will be.

Stage 4) Policy deliberation, the desired levels of school district effectiveness are reviewed, to set new objectives, priorities, and constraints, or to approve those previously developed. This determination involves a community opinionnaire survey.

Stage 5) If any changes are required by the policy deliberation, the next stage is the design of projects intended to close the gaps between the expected levels of effectiveness in the base costs and the desired levels. Community groups participate in the project design activities.

Stage 6) Various combinations of new projects are run through the planning model to generate alternative plans, each with a specified anticipated cost, level of benefit, and revenue requirements.

Stage 7) Alternative plans are considered, and the most cost-beneficial plan for achieving the district's objectives is recommended for implementation.

Stage 8) That plan which is approved by the Board of Education becomes the approved plan. (If the policy deliberation required no changes, the base case becomes the final plan.) The detailed budget proposal for one year of the plan is generated at this point.

SPECIAL FEATURES:

This planning model was specifically designed for a 20,000 pupil school district.

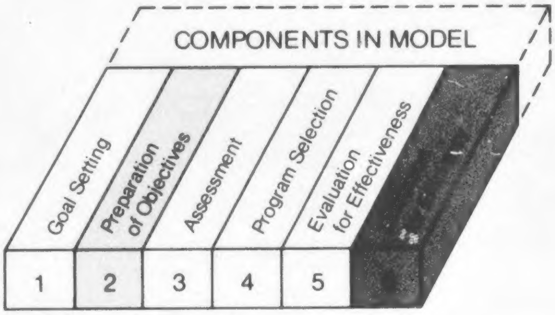
Systems Analysis for Effective School Administration

Developer:
John McManama

Source:
Parker Publishing Co. Inc.
West Nyack, New York
Library of Congress
CC #72-157919
International Std. Bk.
#0-13-881318-3

Cost:
$12.95 (book)

Copyright:
1971



OVERVIEW:

The major thrust of this book is directed to writing performance objectives, designing systems which relate methods of production to the objectives, and managing the system by a process of evaluation which includes detection and correction of deviation from the objectives. The book is written by a school administrator and is only concerned with those aspects of systems analysis which have practical application in schools. The emphasis is on educational objectives and the focus is on learning programs. The book examines many techniques such as program budgeting and PERT scheduling, as they can be utilized in schools. The techniques are viewed in their context as management tests, which the author states is a minor aspect of a total systems approach. The author distills a complete systems approach down to three operations. They are:

I. Analyze what needs to be done
II. Design how it is to be done
III. Manage the system

The author states that the systems approach can be a powerful ally or dangerous adversary depending on who is in control. The major purpose of his book is to assist school administrators in understanding and performing their role as managers of a system.

PROCEDURES:

Through an understanding and utilization of the information presented in this book, the school administrator should be able to:

- Write organizational goals, administrative regulations, and performance objectives to specified criterion standards.
- Conceptualize all of the interactions which occur in moving from goals to solution as a system.
- Analyze what needs to be done in solving an educational problem by performing specified tasks.
- Design how a system should function in order to accomplish its purpose, by constructing a model.
- Operate and maintain a system by performing specified tasks.
- Explain the theory of cybernetics as the key to management control.
- Explain the essential purpose of PERT.
- Explain why systems theory is necessary when interactions are complex with instantaneous effects.
- Conceptualize an instructional system as a matrix of three operations occurring on three hierarchical levels of organization.
- Prepare a planning programming budget.
- Cite the major dangers in store for the school administrator who is not prepared for the era of systems analysis.
- Explain how a systems approach can be used to promote and maintain a humanizing education.
- Perform the role of a systems manager.

IMPLEMENTATION:

School administrators are urged to adopt a total systems approach, which includes responses to the following issues:

1. When complex interrelationships are involved which are difficult to manage, especially when things go wrong.

2. When otherwise simple interrelationships occur simultaneously, making it difficult or impossible to correct for deviations without stopping the operation.

3. When critical feedback control must occur instantly.

4. When it is imperative to detect all of the social consequences of the system.

5. When it appears that the present operation could be improved by introducing any of the above elements.

Furthermore, administrators should not confuse a cumbersome task (scheduling) with a complex task (cost analysis/alternative selection) in deciding to use the systems approach in educational planning. A chief problem to date is that educators have adopted various system techniques without putting them in the framework of a total systems approach. The basic format for implementing the systems model is outlined as follows:

I. Analyze what needs to be done
    State the goals - *Perform the ABC tasks
    State the terminal objectives - Perform the ABC tasks
    State the enabling objectives - Perform the ABC tasks

II. Design the system
    Study the existing design
    Conceptualize the structure
    Select an appropriate model
    Select the methods means

III. Manage the system
    Apply management control
    Perform the ABC tasks

* ABC tasks refer to: A) Consider the alternatives; B) Establish the basic criteria; and C) Identify the constraints.

The model calls for the mobilization of the entire school district for the purpose of implementing a systems approach to educational planning.

A section of the text is designed to alert the school administrator to the potential traps and pitfalls to be avoided in the process of implementation.

SPECIAL FEATURES:

A brief encounter with the future, circa 2001 A.D., is provided wherein changes educators may expect to occur in education are projected. There are three appendices dealing with "A Commitment to Individualized Instruction," "Goals of Society," and "Administrative Regulations."

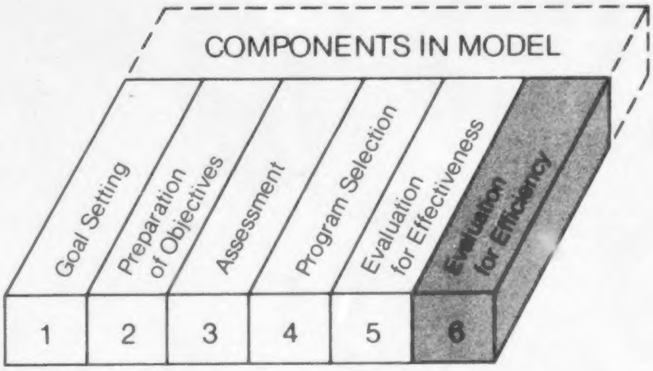
Using Systems Analysis to Implement Cost-Effectiveness and Program Budgeting in Education

Developers:
John P. Ven Gigch
Richard E. Hill

Source:
Educational Technology
Publications, Inc.
Englewood Cliffs, N. J.
Lib. of Congress Cat.
Card #71-153558
Int. Std. Book
#0-87778-007-2

Cost:
$2.95 (paperback)

Copyright:
1971


COMPONENTS IN MODEL
Goal Setting
Preparation of Objectives
Assessment
Program Selection
Evaluation for Effectiveness
Evaluation for Efficiency
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OVERVIEW:

The purpose of this short book, written in two parts, is to explain how the systems approach can be used to draw up a program budget systematically. The concepts, methodology and the setting of goals are discussed in Part I. Techniques to evaluate the effectiveness of expenditures for educational purposes and a model for a program budget are illustrated in Part II. The deductive approach to the solution of problems is used, i.e., the approach begins with the identification of broad goals and systematically proceeds through the elements of the organization in devising a network of objectives and activities to achieve the goals.

PROCEDURES:

The procedures sequenced in this book are as follows:

1. The system design process - a brief review of the components of one system model is presented. Furthermore, criteria by which different actors judge performance of the system is delineated.

2. The goal setting process - a review of the need for goal setting and its relationship to budget formulation is outlined. A network of goals and objectives is graphically illustrated.

3. Framework for a cost-effectiveness evaluation - a review of the relationship of specific program objectives to broad organizational goals with an emphasis placed on decision making.

Examples are provided from information received from the Rio Linda Union School District in California.

notes